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Measuring Locality Group Consensus

Lawrence W. Drabick and Roy C. Buck

The Sociological Study of Communities. *Albert J. Reiss, Jr.*

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M. Rogers and George M. Beal

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LAWRENCE W. DRABICK

and ROY C. BUCK

Measuring Locality

Group Consensus

A community can be considered a group of people interacting on formal, semiformal, and informal levels within a spatial referent. As a result of this interaction, some degree of consensus concerning community boundaries should exist. An approach to community delineation through a community-member-group method should thus be feasible. A consensus index can be developed to measure the amount of agreement. Such an approach, applied in Pennsylvania, gave preliminary evidence of validity and a higher rate of boundary-placement agreement than a comparable trade-area delineation.*

The authors are graduate assistant and associate professor in rural sociology at the Pennsylvania State University.

RURAL sociologists have typically expressed concern over the community as a unit for scientific study, an area for facilitating local action, and a theme for sociological theory development. They have explored its composition, its internal functions, its relations to institutions, and the interaction patterns in and between communities.

Perhaps no area of community investigation has been the subject of so much research as that centered on determination of how the community should be measured and its boundaries located. While this information is widely regarded as necessary for understanding the functions of the community as well as determining loci for action programs, there is little doubt that the emphasis upon this subject results from the catalytic effect of the spectacular original work of Galpin.¹ Following the publication of his results, trade-area community delineation became one of the more popular research areas for rural

*Authorized for publication on April 7, 1959, as paper No. 2354 in the journal series of the Pennsylvania Agricultural Experiment Station.

¹C. J. Galpin, *The Social Anatomy of an Agricultural Community* (Wisconsin Agr. Expt. Sta. Res. Bull. 34; Madison, 1915.)

sociologists.² Because of the convenience of application and the easily understood graphic representation of the community which results, the trade-area method remains, frequently with modifications, one of the primary tools of community delineation.³

The wide use made of trade-area delineation does not indicate complete acceptance of it as a method incorporating all the essentials of community life. Sociologically and ecologically, it is incomplete because of the almost total lack of consideration accorded community interaction processes between people and institutions.⁴ The area within which people do the major share of their buying of certain goods and services may not necessarily be synonymous with the spatial limits of formal and informal activities which pattern their day-to-day living.

The trade-area method has never been completely satisfactory as a graphic form of representation of a community because of the tendency of the trade areas of various businesses to differ in size and form, resulting in what amounts to different "communities." The composite community boundaries procured from the trade-area method, if plotted for adjoining communities, tend to overlap, indicating a lack of discriminatory power. The trade-area "community" obtained about one large trade center is apt to incorporate a sizeable zone containing many name-places which might logically be considered sociologically distinct communities.⁵

²August B. Hollingshead, "Community Research: Development and Present Condition," *American Sociological Review*, XIII (1948), 136-146; John A. Kinneman, "Urbanization as Measured by Hospitalization," *American Sociological Review*, V (1940), 723-730; T. Lynn Smith, "Trends in Community Organization and Life," *American Sociological Review*, V (1940), 325-334.

³Gordon W. Blackwell, "A Theoretical Framework for Sociological Research in Community Organization," *Social Forces*, XXXIII (1954), 57-64; Amos H. Hawley, *Human Ecology* (New York: Ronald Press, 1950), ch. xiii; T. E. Hiller, "The Community as a Social Group," *American Sociological Review*, VI (1941), 189-202; Lewis W. Jones, "The Hinterland Reconsidered," *American Sociological Review*, XX (1955), 40-44; Kinneman, *op. cit.*; John A. Kinneman, "Newspaper Circulation from Small Metropolitan Centers," *American Sociological Review*, XI (1946), 150-155; Charles P. Loomis and J. Allan Beegle, *Rural Sociology* (Englewood Cliffs, N.J.: Prentice-Hall 1957), p. 32; Lowry Nelson, *Rural Sociology*, (2d ed.; New York: American Book, 1955), p. 73; Smith, *op. cit.*

⁴Douglas Ensminger and Robert Polson, "The Concept of the Community," *Rural Sociology*, XI (1946), 43-51; Hiller, *op. cit.*; Hollingshead, *op. cit.*; Jones, *op. cit.*; George A. Lundberg and Margaret Lawsing, "The Sociography of Some Community Relations," *American Sociological Review*, II (1937), 318-335; Leland B. Tate, "The Role of Informal Activities in Community Life," *American Sociological Review*, X (1945), 158-160.

⁵G. H. Aull, C. B. Fellers, and J. A. Mixon, *A Brief Economic Survey of the Anderson (S.C.) Trading Area* (South Carolina Agr. Expt. Sta. Cir. 68; Clemson, 1944); E. deS. Brunner, G. S. Hughes, and M. Patten, *American Agricultural Villages* (New York: George H. Doran, 1927), p. 51; Hawley, *op. cit.*, ch. xiii; Harold C. Hoffsommer, *Relation of Cities and Larger Villages to Changes in Rural Trade and Social*

Dissatisfaction with the representations of community obtainable by use of the trade-area and related graphic methods has led sociologists to seek alternative ways for ascertaining the presence of a community. These latter methods have generally been based upon identification of interaction variables presumed to be associated with people living in communities and have resulted in such indices as solidarity scales, sociograms, or criteria check lists.⁶ Such studies are of value for their ability to expand the boundaries of knowledge relevant to the structural-functional aspects of community theory. But they are of limited use to the planner of action programs and, further, are difficult to comprehend and apply since they cannot be reduced to a spatial diagram which geographically locates the areas of social interaction which they measure.

THE PROBLEM

Delineation of rural communities is important for the solution of theoretical as well as immediate problems. Such delineation will fail completely to fulfill the goals of either area so long as the method used is insensitive to the "human" aspect of the community and cannot yield community boundaries which are both precise and inclusive of the community under study while exclusive of adjoining communities. Finally, any method of locating the rural community which is not so devised that the results can be shown graphically and geographically is of limited value for immediate, practical use by lay persons.

The concern of this research was to devise a method of delimiting communities which would satisfy three major needs. First, it must result in a representation of the community as a geographic unit. Second, it must take into consideration as many as possible of the interaction variables engaged in by, and important to, the residents of the locality. Third, it must result in boundaries which are specific to, and inclusive of, the locality under study but exclusive of adjacent communities.

THEORETICAL FRAMEWORK

There is current recognition that the concept of community must embrace two essential criteria: spatial limits and the personal and

Areas in Wayne County, New York (Cornell Univ. Agr. Expt. Sta. Bull. 582; Ithaca, 1934); Alfred M. Paxon, *Relationships of Open-Country Families of Onondaga County, New York, to Socio-Economic Areas, Villages and Cities* (Cornell Agr. Expt. Sta. Bull. 584; Ithaca, 1934); Edward A. Taylor, *The Relationship of the Open-Country Population of Genesee County, New York, to Villages and Cities* (Cornell Agr. Expt. Sta. Bull. 583; Ithaca, 1934); W. R. Taylor, "The Process of Change from Neighborhood to Regional Organization and Its Effect on Rural Life," *Social Forces*, XVI (1938), 530-542.

⁶Donald R. Fessler, "The Development of a Scale for Measuring Community Solidarity," *Rural Sociology*, XVII (1952), 144-152; Hiller, *op. cit.*, Lundberg and Lawsing, *op. cit.*

institutional interaction patterns of the inhabitants.⁷ This concept is not new. There is evidence in *The Social Anatomy of An Agricultural Community* that Galpin realized the importance of social interaction in community definition as well as the failure of the trade-area delineation method properly to account for it. Continued reference to the importance of the "human factor" has been made by researchers as well as commentators, but little has been done to incorporate it into community delineation theory or practice.⁸

A community, if it is to have meaning outside of the purely theoretical realm, must have position; the interested person must be able to locate it in a geographic context. Indeed, an underlying assumption, inherent in the word community, is that a common locality is involved.

Also inherent in the word community is an assumption that a commonality of life processes occurs within the locality. This commonality transcends relationships within the institutional and formalized structures, such as government, school, and religious systems. It includes noninstitutionalized but readily recognized voluntary groupings. The informal contacts, acquaintanceships, and shared perceptions inevitable among people who daily inhabit and move about in a spatially limited environment are also important components of the community.

Within this context, the individual is constrained to identify not only with an area but also with people who share similar contacts with the elements and processes which comprise the organic functioning of the community as a social system. Each individual is inexorably tied to some of the basic institutions of the community in much the same way as each other individual inhabitant. He pays taxes to the governmental unit, is influenced by its decisions, and regulated by its policing structure. He supports the educational structure and is influenced by its actions and decisions. He is, at least, aware of the religious structure and is probably a part of it. Few individuals will be identically affected by all institutional ties, but each will participate in them to a greater or lesser extent.

In addition, and perhaps more importantly, the individual inhabiting a community will be affected by the semiformal, and often frequent and intimate, contacts which he shares with selected groups. His contacts within the family cannot be regarded as constrictive or limiting. Relationships of each family member with various aspects of the community are synthesized in the interfamily relationship pattern in such a way that each member enjoys a vicarious knowledge of and participation in the community which interlocks with his personal life in it.

Less obvious, but perhaps of no less importance to community perception and identification, are the informal aspects of membership. The

⁷George A. Hillery, "Definitions of Community: Areas of Agreement," *Rural Sociology*, XX (1955), 111-123.

⁸Hollingshead, *op. cit.*; Jones, *op. cit.*; Lundberg and Lawsing, *op. cit.*; Tate, *op. cit.*

salutation of a community member known by face alone, the knowledge that church bells will sound Sunday morning, the realization that the sighted school bus soon will pick up a family member, the characteristic sound of a local industry, all become part of a network of knowledge and expectation binding an individual into the interactive framework of the community.

Including all these, but serving an independent function in membership identification, is recognition of the interaction characteristics of the community as a social system.⁹ Acting together, the formal, semi-formal, and informal aspects of a community function as an entity which is greater than the sum of its parts. A community has a character of its own and is integrated into the individual's conception of his existence in and through it.

The individual's conception of the community is based on his knowledge and perception of and participation in the formal, semi-formal, and informal aspects of the community together with the integration of these units into a distinct social system. To the extent that each individual apperceives these four areas, he is aware of the community. To the extent that there is similarity in the apperceptions of individual community members, there is consensus regarding the community.¹⁰ If these four units of community are real and meaningful, various members of a community assembled together should be able to achieve consensus concerning the location of the community boundaries. This reasoning led to the application of a group approach to community delineation reported here.

METHODOLOGY

Field methodology: Three adjacent townships in southeastern Pennsylvania were selected as the study site. Two townships contained one population center each, the other had two. These centers ranged in population from about 800 to 3,100.¹¹ The area was located on the edge of the most productive farmland in the state. It had an ethnically varied population, which included some of the Plain People as well as many Pennsylvania Dutch. Income was received from light and heavy industry as well as from agriculture. The area was in the main stream of the spreading influences of urbanization and industrialization.

In and about each of the four population centers, adult persons representative of four categories, business people, farmers, older persons, and active church participants, were contacted and requested to aid in the assembly of groups of persons similar to themselves. In

⁹Blackwell, *op. cit.*; Fessler, *op. cit.*; Hiller, *op. cit.*; Lundberg and Lawsing, *op. cit.*

¹⁰Mary Monk and Theodore M. Newcomb, "Perceived Consensus within and among Occupational Classes," *American Sociological Review*, XXI (1956), 71-79; Louis Wirth, "Consensus and Mass Communication," *American Sociological Review*, XIII (1948), 1-15.

¹¹Given the code names of Littletown, Growtown, Dualtown, and Urbania according to unique characteristics of each.

addition, a group of young people was recruited from the high-school senior class at each center. Ideally, five groups should have been interviewed at each center, but some duplication of group types occurred, resulting in from five to seven meetings in the various centers.

Each meeting began with a discussion emphasizing the reason for conducting the study, the meaning of community to the assembled group, and those items or factors which members associated with community location. Discussions varied in length from one hour to two hours and were typically terminated only after argumentation had narrowed opinion difference to negligible amounts. When this point had been reached, members were asked to co-operate in outlining, on transparent paper laid over a large scale highway map, what they considered to be the limits of "this" community. Differences in boundaries were discussed and opportunity for changing them allowed. The resulting outline represented the greatest agreement possible within the particular group participating.

In addition to the boundaries obtained in the manner outlined above, trade areas were obtained from local merchants. In all but the largest community, coverage of the merchants was practically complete. In the largest community, coverage was estimated at about 85 per cent.

Analysis: At the conclusion of the field work, there had been accumulated twenty-one group boundaries and forty-five trade-area boundaries. The analytical problem was that of determining the amount of agreement expressed among the various boundaries of each type about any one of the centers. In a rough way, this agreement could be measured by the simple expedient of superimposing all boundaries of either type from one center on a single map, as in the usual mapping of communities. This procedure emphasized the similarities and the differences among the various boundaries but afforded no means of measuring the amount of agreement. For this purpose, the concept of locality consensus was developed.

Just as it was assumed that shared participation in and perception of the community would make it possible for a group to agree on the boundaries of the community, so was it assumed that a further step could be taken; namely, different groups, assembled at various times and representing different elements of the population, would share so many of the variables of community life that they would also be in agreement concerning community boundaries. Criteria for measuring the similarity could be devised and the amount of consensus represented could be measured.

Two criteria for consensus were used. The first pertained to the amount of agreement and specified that more than half of the boundaries about a center shall occur within defined limits. The second applied to the area of agreement and specified that those defined limits shall be three-quarters of a mile.

Application of the consensus device to the trade areas obtained from each center would make it possible to compare the agreement concerning community boundaries obtained from each approach to delineation. Further, it would act as a test of the belief that community consensus is partly a resultant of shared actions and beliefs. It was thought that trade-area boundaries are not drawn according to these interaction variables to the same degree as are the group boundaries.

Therefore, at any point about a center at which more than half of the boundaries, either group or trade area, occurred within a distance of three-quarters of a mile, consensus was presumed to exist. The criterion of distance was measured along a radial line extending from the center of the settlement to avoid the presumption of consensus which could have been found in many areas by shifting the plane of measurement.

A consensus index was developed in order to express consensus in a numerical form. It was made possible by the fact that boundaries about a center tended toward a circular form and could be treated as though they were circles. If consensus existed at all points among the various projections about a center, it could be expressed in terms of a circle, as 360 degrees. Consequently, it was possible to convert the degrees of a circle into a 0 to 100 equivalent and express the amount of consensus occurring, measured by a circular protractor, as a consensus index number. This was done for both types of boundaries obtained about each center, allowing comparison of the results obtained from each method, as shown in Table 1.

Table 1. A comparison of consensus indexes obtained by two methods of community delineation

Center	Consensus index	
	<i>Trade-area boundaries</i>	<i>Group boundaries</i>
Littletown	51.1	91.3
Growtown	45.5	45.8
Dualtown	71.9	57.2
Urbania	0.0	86.9

About Dualtown, the trade-area boundaries resulted in more consensus than did those of the groups. At Growtown, the results were essentially the same. For the remaining centers, group boundaries achieved more consensus than did trade-area boundaries by a wide margin.

It is suggested that the complete reversal of trend evident in Dualtown may be a result of two factors: the inadequacy of the trade com-

plex and the proximity of the more urban Growtown and its more extensive trade complex. Because of the limited trade complex in Dualtown, the merchants could know with considerable accuracy whence their trade came. This condition led to an expression of agreement among their trade zones. Conversely, the group-meeting boundaries were less expressive of agreement because the inability of the inhabitants to attain desired goods, services, and need satisfactions in Dualtown caused them to participate elsewhere to varying degrees. This condition of divided participation of Dualtown inhabitants was considered to be the major reason for the low consensus index for this area.

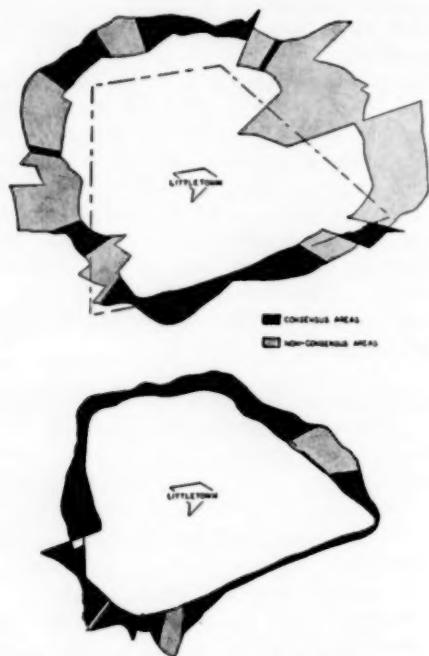


Figure 1. Above: Trade-area annulus, Littletown. Below: Group-boundary annulus, Littletown.

In addition to numerical expression, consensus may also be shown graphically. The latter method has the advantages of being a unique, obvious, visual form and one which can show the location as well as the amount of consensus. The visual expression of consensus was accomplished through the use of annuli, circular patterns of boundary agreement about each center.

Because of the variations in distance from the center exhibited by each boundary, some parts of the annulus meet the criteria of consensus while others do not. Consensus areas of the annulus are shown by solid shading. In each case, the annulus represents the greatest agreement concerning the location of the community boundary expressed by the various groups independently plotting the community. Irregularity of outline typical of the annuli is the result of the fact that the irregular form of the original boundaries caused the sectors representing more than half of the total boundaries about a center to assume the outline of the outermost and innermost boundary.

Annuli were composed for both trade-area and group boundaries, as in Figure 1. This permitted visual comparison of consensus, of the difference in annulus width in consensus and nonconsensus areas, and of the distance of the annulus from the center and the various positionings of the consensus areas.

Finally, to determine the amount of overlap between community boundaries, a composite of annuli for each method of boundary determination was composed, as in Figure 2. There was a lack of complete exclusiveness regardless of the boundary type utilized, but the amount of overlap was considerably less for the group-boundary composite. The central position of Growtown inevitably led to much overlap in that area. However, it is demonstrable that, were the Growtown annulus removed, the trade-area composite would still exhibit much overlap whereas the group-boundary composite would present minimum overlap.

CONCLUSIONS

A group of locality inhabitants is able to achieve consensus concerning the location of a rural locality, and it is possible for such a group to place locality bounds with some precision. Further, because the decision of placement is based on consideration of a number of interaction variables common to many participants in the locality, it would seem that the result is a more accurate representation of a community than could be any which was arrived at by interviewing a single special interest group such as businessmen.

The ability of locality residents to place such boundary lines appears to be a result of shared knowledge, perceptions, and actions. It is suggested that there is a meaningful relationship between this ability and the conceptualization which regards consensus as an ability of people "to maintain simultaneous orientation toward one another and toward the object of their communication."¹²

Locality consensus, the amount of agreement concerning locality boundaries expressed among the various groups about a center, reinforces the assumption that the separate groups projecting boundaries

¹²Monk and Newcomb, *op. cit.*

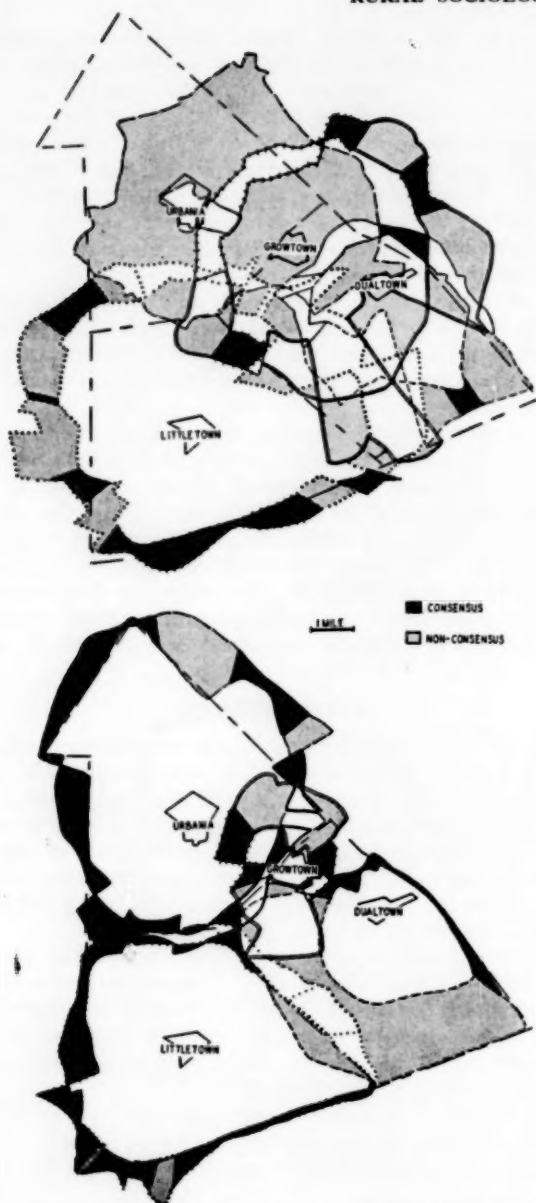


Figure 2. Above: Trade-area annuli, composite. Below: Group-boundary annuli, composite.

reacted to similar criteria. It serves to validate the consensus theory as well as the methodology of delineation. It seems probable that inclusion of more groups from one center would increase the locality consensus, as was the case at Littletown.

Precision of boundary location varied, as represented by the varying widths of the annuli. Generally speaking, more precision was obtained from the group-interview technique than from the trade areas. The former were greatly superior in achievement of exclusiveness. The overlap between communities designated by the trade-area study greatly exceeds that of the group-interview technique.

The concept of consensus seems to have value as a theoretical framework for community delineation. It provides a method responsive to interaction variables and amenable to graphic portrayal. In association with the annular method of community representation, it has shown advantages over the trade-area delineation approach in locating a particular community and in distinguishing between adjacent communities.

The preceding statements are subject to the following qualifications. First, it is quite possible that the ethnic, economic, and social composition of the area, as independent factors or combinations, may have contributed to the findings. Second, the validity of the method has not been proven beyond face value. Third, reliability has not been tested adequately.

For these reasons, it is suggested that additional research, based on this method but completed under different environmental conditions, is needed. An attempt to base programming on communities delineated by this method on the part of local action agencies would provide the practical proof concerning its value and adaptability.

ALBERT J. REISS, JR.

The Sociological Study of Communities

Research on communities often fails to meet two important criteria which permit valid generalizations from the findings. First, studies generally fail to apply the scientific comparative approach and the techniques of multivariate analysis in their design and execution. Second, theory fails to distinguish between properties of communities and properties which are properly classified in other systems. These failures are discussed and suggestions made to correct them.*

The author is with the Department of Sociology and Anthropology at the State University of Iowa.

SOCIOLOGISTS who study communities do not share a precise definition of community, nor do they agree how observations about community phenomena are to be incorporated into sociological theory. This lack of agreement, in fact, is the *raison d'être* for this paper, since it explores both theoretical and research questions which these writings raise. The discussion that follows will be facilitated, however, if we can make reasonably clear the sense in which this paper deals with the sociological study of community.

Community is viewed in this paper as a territorial system. The more comprehensive territorial definitions of community view it as a form of social or ecological organization arising from the fact that people share a common area for their daily activities. Community thus is viewed as a collective response to conditions of life in a particular territory. We shall say that *a community arises through sharing a limited territorial space for residence and for sustenance and functions to meet common needs generated in sharing this space by establishing characteristic forms of social action*. It is assumed, for the purposes of this paper, that this definition is broad enough to include an interest in both the ecological and the social organization approaches to the

*This paper was read at a symposium at the University of Wisconsin, May, 1958, in honor of Professor John H. Kolb.

study of community.¹ The definition is intended solely to sensitize the reader at the outset to the general perspective followed in this paper. It should not be interpreted to mean that a large number of characteristics are used to define a community in either a theoretical or an operational sense. At this juncture in our sociological study of communities, perhaps much is to be said in favor of defining a community in terms of a very small number of variables so that empirical observation may establish what phenomena are associated with them.

GENERALIZATIONS ABOUT COMMUNITIES

A review of the literature with a view to codifying research on communities shows the multiform nature of the concept of community. A majority of all published research studies purporting to be community studies simply use a territorial area as a sampling context and examine some problematic aspect of human beings within that context. The question naturally arises, why should these studies select a community as the context for the study of a problematic aspect of human behavior? From a scientific point of view there seem to be only two reasons for selecting a community as a context for such studies: one wishes to show either (a) that the generalizations sought are causally independent of the influence of communities or (b) that the generalizations systematically vary with certain stated properties of communities. In either case, there must be a demonstration of *how* variation in properties of communities affects the problematic aspect of human behavior under investigation; this requires testing the null form of hypotheses about the causal consequence of community attributes or variables.² Most so-called community context studies do not meet these criteria for the simple reason that either they select only a single community for investigation, and hence cannot show that their relationships are independent of the context, or they fail to identify properties of communities with which their relationships may vary.

The second largest number of studies of community in the research literature purport to select attributes of communities as the object of investigation. From a scientific point of view such studies should follow

¹Specifically, we wish it to include the type of considerations set forth in Amos Hawley's formulation of human ecology as a theory of community structure, *Human Ecology: A Theory of Community Structure* (New York: Ronald Press, 1950) and at the same time embrace the social organization approach followed in diverse ways by a large number of sociologists, as in the structure-function approach of Talcott Parsons' *The Social System* (Glencoe, Ill.: Free Press, 1951), pp. 91 ff; the teleological-organizational approach of Kingsley Davis' *Human Society* (New York: Macmillan, 1949), pp. 310-313; or the institutional process approach of Robert E. Park and E. W. Burgess' *The City* (Chicago: University of Chicago Press, 1925).

²A critique of community context studies is to be found in the writer's "Some Logical and Methodological Problems In Community Research," *Social Forces*, XXXIII (Oct., 1954), 52-54.

a design of comparative community research which bears a close relationship to experimental method. There are studies which approximate such a model, notably in human ecology and demography and to some extent in rural community research. All too often, however, only a single community is selected for study, thereby precluding any investigation of variation in attributes of communities, or some property of the population within a community rather than a community attribute is selected for study. For example, the migrant status of persons within a single community is inferred as a community property.

These comments now lead us to some general observations about the kind of approach to the study of communities which scientific generalization dictates.

1. Community studies should be designed to show systematic variation in the properties of communities and to establish relationships among communities which arise within a larger system or network of communities. This requirement generally means that we must obtain some sample of communities whose parameters in a universe of communities can be inferred or specified (or we must know the parameters). We therefore are not interested in the unique attributes of communities, which often may be all that we are investigating in studies of a single community. The important fact to be recognized here is that we must first establish that we have some community properties and show how they systematically vary among communities before we can generalize about communities.

2. When we wish to examine how community affects any problematic aspect of human behavior under investigation, we must first select some property which systematically varies by community and then, controlling on this test factor, test the null form of the hypotheses about its effect on our observed relationship. For example, suppose we have observed a relationship between the migrant status of persons and the degree of social participation in voluntary organizations, and then we wish to see how "community" affects this relationship. Let us hypothesize that the size of a community will have some effect on this relationship. By the simple technique of partial association we can then examine the effect of size of community on this relationship, assuming we have an adequate sample of the size continuum of communities. Thus, our dummy table might look something like the one given here.

Migrant status	Size of community						
	Small	Medium	Large				
	Social participation score						
	High	Low	High	Low	High	Low	
Migrant							
Nonmigrant							

3. Community properties can be viewed as independent, dependent, or intervening variables.

If community properties are viewed as dependent variables, then generally we will need to look to external system variables to produce the variation among communities. Too often, when a property of a community is viewed as a dependent variable, some other property of a community rather than a system condition is taken as the independent variable. Thus, if we seek to explain functional differences in specialization of communities, we shall need to look to an "external" set of conditions which produce the functional variation, rather than to some property of the community which itself may be a source of functional variation. Or, if we wish to show that there is some variation in the status structure of communities, we should not look to internal but to external system conditions primarily.

If community properties are viewed as independent variables, then generally either we should be interested in the relationship among communities, as for example in their exchange relationships or modes of interaction, or we should investigate their effect on the behavior of persons. Many human ecologists treat such properties of communities as their size, spatial organization, degree of urbanization, rate of growth, and functional specialization as the independent variables affecting "relations" among communities and the behavior of residents within them. Characteristic properties of the social organization of communities can similarly be treated as independent variables.

Usually we do not consider community as an intervening variable, yet there seems logical justification for considering it as such in certain research problems. One such instance where a community property might be considered an intervening attribute is where "community of origin" is attributed to an individual datum, and the intervening effect of this variable on a relationship is investigated. For example, we may wish to investigate the effect of the size of the community of first job on an occupational inheritance relationship.

4. One of the more difficult problems in community research is the delineation of variables or attributes which characterize a community. The substantive nature of these variables depends upon our theory, of course. Still, in a formal sense, there are at least three major types of variables or attributes which merit our consideration.

There are, first, those attributes which are defined by an aggregation of some characteristic of the individuals who are residents in the community (or by an index). This property may be expressed in terms of some measure of descriptive statistics or stochastic analysis. Examples of this kind of characteristic are the size of the population, the relative homogeneity of the population in terms of some demographic or social characteristic, or the attitudes of members toward some "community problem." The property we attribute to a community in this sense must arise from data gathered from individual residents through census or survey techniques or by techniques of social observation.

The second major way we may characterize communities is in terms of some measure of relationship of the individual members to the community. Here we refer to extra-individual properties which are derived from the interaction of individuals. We therefore seek variables which characterize the interaction of inhabitants in terms of community, e.g., their neighboring, their patterns of movement in time and space, or their patterns of community conflict or consensus. These variables must be measured by techniques which describe and analyze interindividual relationships.

There is, third, a set of characteristics which refer to the community system

apart from any *direct* reference to the individual. We may characterize communities in terms of their social institutions or some state of the system, for example. Thus, we may wish to speak of their industrial composition or their moral integration. Our techniques of measurement for these variables are generally inadequate, as are our concepts. Generally we revert to some "less satisfactory" operational measures of the state of a community system which aggregate individual units of observation, e.g., the number of social agencies per 10,000 population or the ratio of productive to maintenance workers in an area.³

Our major reason for delineating these three types of community properties is to point up two facts. Most of our research on communities is on the first level, that of characterizing communities in terms of the characteristics of individual inhabitants. The second point is that we have failed to develop satisfactory operational constructs or measures for describing communities in terms of extra-individual properties of the system. This is less true in the field of human ecology than it is in social organization studies of communities, but it remains true for both major fields of investigation.

THEORETICAL APPROACHES TO THE STUDY OF COMMUNITY PHENOMENA

All individuals, their interrelationships and institutions, and their social systems can be allocated to territorial space. The geographic distribution of any phenomenon therefore is no satisfactory criterion for designating it as a community property, even if it occurs within a territorial space designated a community. The question naturally arises then, what major criteria shall we apply to designate phenomena as community variables in theory. We have answered this in part with our earlier statement that a community arises through sharing a limited territorial space for residence and sustenance and functions to meet common needs generated by such sharing of space in establishing characteristic modes of action. There appear to be two major frames of reference which attempt to study the community within this framework. Let us examine each of them briefly.

The community as an ecological system: Ecologists assume that community structure manifests itself in a spatial and temporal pattern. Hawley observes that in making this assumption we may start with the "wrong end" as we begin with little awareness of community structure itself. We therefore find it difficult to study a space and time which corresponds with community structure.⁴ Hawley defines a "community as... comprising that area, the resident population of which is inter-related and integrated with reference to its daily requirements, whether

³We do not wish to pose any artificial opposition of the "dead" controversy of the individual and the group in this three-fold characterization of community attributes. The distinctions are purely heuristic.

⁴Amos Hawley, "Discussion," *American Sociological Review*, XIII (1948), 153-156.

contact is direct or indirect,"⁶ or "the community includes the area the population of which, however, widely distributed, regularly turns to a common center for the satisfaction of all or a major part of its needs."⁶ The ecologist therefore deals only with the symbiotic and commensalistic aspects of communities. Generalizations are sought about the structural features of communities and how these features change in response to external conditions. This "restricted" approach to community study leads to a fairly closed theoretical system, but this very advantage appears in another sense to be a major limitation of the approach in that it ignores other kinds of community phenomena, namely, the role relationships and institutional forms of action which arise from the fact that individuals are motivated toward particular ends in sharing a territory for residence and sustenance relationships.

The research of the ecologist has in large part been focused on the internal structure of communities and only to a small degree on the external relations of communities. To be sure ecologists in their studies of dominance and of regional networks have focused to some extent on the relations among communities.⁷ Yet we have not derived a satisfactory model for the study either of ecological relationships among communities or of the major ecological variables in the intercommunity relationships which occur within a larger matrix or system of communities. This appears to be a major research frontier in human ecology.

Much of the research of the human ecologist deals with relations of production within a community and between communities. This is true of ecological theory as well. Location theory, for example, concentrates to a great extent on productive means and only to a lesser degree on the production-consumption relationship. To be sure the conception of a market implies both, but the ecologist has concentrated less on the consumption than on the production side. This seems true of one of its parent disciplines, economics, as well. Consumption economics appears to be less highly developed than the economics of production. A community, however, is to a large extent a consumption unit. In point of fact, probably most communities "consume" more of what is produced locally than they export unless it is a highly specialized com-

⁶Amos Hawley, *Human Ecology*, pp. 257-58. Hawley's definition is chosen as representative of the more recent theoretical approaches in human ecology.

⁷*Ibid.*, p. 246.

⁸See in particular Donald J. Bogue, *The Structure of The Metropolitan Community: A Study of Dominance and Subdominance* (Ann Arbor: University of Michigan Press, 1949), and Walter Isard, Robert A. Kavesch, and Robert E. Kuenne, "The Economic Base and Structure of the Urban Metropolitan Region," *American Sociological Review*, XVIII (1953), 317-321. A forthcoming paper by Otis Dudley Duncan makes a substantial contribution toward outlining theoretical problems and generalizations in this area, "Human Ecology and Population Studies" in Philip M. Hauser and Otis Dudley Duncan, eds., *The Study of Population* (Chicago: University of Chicago Press, to be published).

munity. Some ecologists have tried to classify communities in terms of a production-consumption or a production-maintenance ratio in recognition of the importance of the consumption organization of a community, and others have described the patterns of retail trade. Despite these pioneer studies, a second major frontier in human ecology appears to be that of concerted research on the consumption organization of a community.

A third major frontier in ecological research lies in the detailed analysis of the residential structure of communities. Ecologists are concerned with the residence as well as the sustenance relationship. Too often in ecology, residence is simply a convenient means for defining a community area or for studying the relation of residents to a sustenance context, as for example in the study of patterns of movement to work or to a central business district. A community, however, consists of a host of residential relationships as well. For example, let us take the problem of temporal patterns of residential movement. Little is known about the daily, weekly, seasonal, and other cyclical patterns of movement in the residential community. What is the nature of the movement among residentially oriented institutions such as the home, church, school, park, residential center, and so on. One might hypothesize that the volume of residential kinds of movement exceeds the volume of movement to and from work, that patterns of residential movement may go counter to patterns of sustenance movement, that the volume of residentially related contacts exceeds the volume of sustenance related contacts, and so on. The human ecologist has essentially ignored all but the "productive" units of a community. The family unit, the child, and other "consuming" units have gained no place as units of observation in the studies of ecology, but research on residential relationships necessitates observation of these units as well.

Some forty years ago C. J. Galpin wrote his now classic bulletin on agricultural centers, emphasizing the interrelations among parts of a community.⁸ In a very recent monograph John H. Kolb develops this perspective considerably further, showing the historical development of the town-country community and emphasizing the intercommunity patterns which they form.⁹ Kolb's monograph brings together research on these intercommunity patterns and points the way to some of the problems in intercommunity relationships which both the ecologist and the student of social organization need to continue to investigate. The kinds of problems which give rise to intercommunity relations, which he discusses, include such instances as the consolidation of institutions undergoing intercommunity conflict, the functional inter-

⁸*The Social Anatomy of an Agricultural Community* (Univ. of Wisconsin Agr. Expt. Sta. Res. Bull. 34, Madison, 1915).

⁹*Emerging Rural Communities* (Madison: University of Wisconsin Press, 1959), pp. 8-9 ff.

dependence of communities for institutional services of various types, and changes in the territorial space of communities as a consequence of competition among them. The study of intercommunity conflict and its resolution and of the increasing functional interdependence of communities is one of the major frontiers for community research. An excellent example of the kind of research which can be done at this frontier and which meets our previously stated criteria of scientific comparative community research is a study completed here at the University of Wisconsin by Burton Kreitlow and James A. Duncan.¹⁰ Comparing heterogeneous and homogeneous communities, they show, for example, that residents of the heterogeneous communities were more accepting of programs favorable to school consolidation and improved farming practices.

The community as a social system: The conventional treatment of communities, particularly omnibus community studies, presents the community as a microcosm of the larger social macrocosm—as the smallest territorial system which encompasses the major features of society, that is, a society in miniature. A community is usually seen then as possessing a system of stratification, a power structure, characteristic institutions such as educational, religious, and economic ones, and so on, depending upon the “complexity” of its organization. All the major attributes of society therefore are looked for in each community, described, and analyzed.

This is not the place to discuss this approach in detail. Here we wish simply to point out that the characteristic mode of analysis employed in these studies is no different from that used in describing and analyzing the macrocosmic social system. Specific community properties therefore are not identified. Take the case of social stratification as an example. A typical study of “community stratification” fails to show that there is variation in stratification which can be shown to be a property of communities. No systematic study of community variation in stratification can be developed so long as this microcosmic social system approach is followed. There appear to be two major ways out of this dilemma so that we may identify organizational properties of communities which vary systematically. We shall designate these as the *interaction-space approach* and the *social-group approach*. In a real sense the two approaches converge and represent only differences in emphasis. Let us briefly examine each of them.

The interaction-space approach takes as its major focus that the *community involves collective action toward the realization of common goals arising in a residence-sustenance locality*. In brief, a community exists only when there is (a) common recognition of “local” goals, (b) collective motivation with respect to these goals (co-operation, conflict,

¹⁰*The Acceptance of Educational Programs in Rural Wisconsin* (Wisconsin Agr. Expt. Sta. Bull. 525; Madison, 1956).

and so on), and (c) local allocation of resources with respect to these goals.

It perhaps is not unfair to say that this area of research has pretty much been left to persons with a social-problems or action-oriented approach. As a consequence of this fact no systematic approach to the diverse problems which confront communities has been developed. Studies in fluoridation, race relations, taxation, school consolidation, and a host of similar "local" problems generally lead to descriptive studies of the problem in a single community rather than to an investigation of community attributes of these problems and their community variation. This whole approach to community study appears as a research frontier. Perhaps we might point out a few ways in which a systematic approach may be made to some of the problems in this area, however.

A central problem of all communities is the resolution of community conflict. This research frontier is treated in a most seminal way in a recent monograph by James Coleman.¹¹ Coleman codifies some of the findings from a large number of individual studies on the genesis and resolution of community conflict. While his codification does not always distinguish between community attributes of conflict and more general system properties of conflict, it shows that a problem such as community conflict serves as a means of focusing attention on specific attributes of communities and not on the specific conflict situation, as so often is the case. The kind of questions we then can ask and attempt to answer are such as these: Under what specific conditions in a community does conflict arise, and correlatively under which does conflict over "problems" fail to appear, given similar expectations of conflict. For example, when will there be conflict over school consolidation, school racial desegregation, increased taxation, fluoridation, and so on? Under what conditions are various "equilibriums" reached as "solutions" to any problem of community conflict? The most general question around which research in this area might be designed is that of determining the nature of the processes of decision making in a community. A design for studies of this type might include the following features: (1) select all communities which have recently had a similar decision (e.g., fluoridation, school bond issue, or school desegregation); (2) obtain matched pairs of communities in which the decision was for and against (matching on criteria it is felt desirable to control as sources of variation); (3) examine the pairs for community attributes producing the decision.

A second major type of problem which merits our attention is that of discovering how communities affect patterns of interaction among persons. Much has been written about how size, density of settlement,

¹¹*Community Conflict* (Glencoe, Ill.: Free Press, 1957). See also Florian Znaniecki, "Group Crises Produced by Voluntary Undertakings," in Kimball Young, ed., *Social Attitudes* (New York: Henry Holt, 1931), ch. xi.

heterogeneity of the population, and similar characteristics affect social relations among inhabitants. Yet there virtually is no research which compares communities in this respect. Some of my own research has been devised to see how kinds of primary contacts vary among urban, rural nonfarm, and rural farm communities. The results are only suggestive of what we may learn, but they show, for example, that community is more important than social status in determining the amount and types of primary and secondary contacts of inhabitants. Closely related to this is the problem of learning how residence conditions interpersonal relations. While we have a large number of studies of the neighboring relation, it still is far from clear how differences in community structure affect the neighboring relation.

The social-group approach to community study rests on the postulate that *a community system differs from other systems in that locality is a datum in the integration of the system.*¹² Not all interaction which occurs within a territorial area derives from a community. Only those forms of interaction are community which arise within locally defined and implemented value orientations. Several forms of interaction which occur within a territorial community are excluded if we follow this principle. First, all interaction within defined institutions such as the school, the factory, the church, is noncommunity unless the interaction occurs within the context of locally defined values, with agents occupying local roles, and the like. For example, while the school is primarily not of the community in this sense, the controversy over school consolidation, location, or desegregation may have certain community aspects. School consolidation or desegregation in a community may be largely a consequence of extralocal policy; yet at some point there is community policy and decision making on these questions. Second, certain institutions in a community are specialized ones, where residents have little direct relation to the community in which they are located, e.g., state mental hospitals or penitentiaries. To be sure, institutional personnel may be involved in locality relationships or problems, but the residents usually are not.

On the other hand, certain types of institutions are primarily distinguished by their community properties. These include the following: (a) institutions which derive from the residence context, e.g., rooming and lodging houses, patterns of residential spacing, or the local community newspaper;¹³ (b) institutions which derive primarily from the consensus process in the community, e.g., the local improvement asso-

¹²This approach was suggested to the writer by E. T. Hiller's essay "The Community As A Social Group," *American Sociological Review*, VI (1941), 189-202, and an earlier essay by Florian Znaniecki, *op. cit.*

¹³See Morris Janowitz, *The Community Press In An Urban Setting* (Glencoe, Ill.: Free Press, 1952), for an analysis of the newspaper as a locality institution in a metropolis.

ciation, civic associations, and so on; (c) an extralocal institution which utilizes local action to implement both local and extralocal goals, as in the case of local chapters of NAACP, the AMA, or Chambers of Commerce.

An example chosen from the theory of stratification may serve to clarify this approach to community study. There is much controversy in the literature of social stratification over the question whether stratification is a mass society or a local phenomenon. Our problem here is simply to show that a conceptual approach to stratification is possible in local community terms apart from the mass stratification aspects.

We shall begin by noting that the fact that communities vary in some attribute such as the dimensions of the status structure or the amount of in-and-out mobility does not mean that these are community attributes in the sense in which we now are speaking. For one can easily show that these dimensions can arise *outside* a community system as well as *within* a system. We deal in this approach only with those properties which arise within the system. The fact that one community has a predominantly white-collar structure while another has a predominantly working-class structure is primarily a direct consequence of the functional organization of the community, but it also is an indirect consequence of the fact that this functional organization is itself a consequence of the economic interrelations of the community in the larger society. In a very real sense almost any characteristic of a community is an indirect consequence of the larger social matrix within which a community arises and persists. The size of a community probably is a consequence of where a community fits into some larger system of communities. Despite the fact that a phenomenon such as the stratification structure of a community in a complex society is primarily determined by extralocal factors rather than local ones, it appears there are several senses in which we can view locality attributes. The following, at least, are suggested:

1. A community is an arena for the exercise of status. Persons who occupy similar positions from a mass stratification perspective may have highly different positions in a local community depending upon the composition of the population, the basis for status attribution, or the roles which a person occupies in the community. This local status is nontransferable in contrast with the mass status which is transferable from community to community. Some occupational roles may be so intimately tied to a community status that it may be extremely difficult to move to another community without a great risk or "loss" to the person. This is generally true of the professional with a local "private practice." By way of contrast the person with a "public clientele" may more readily move. Thus, social workers should have a higher rate of community mobility than physicians.

2. Communities may vary in the way in which they facilitate social mobility, apart from the mass avenues to mobility. They may facilitate and retard social mobility (even in the restricted occupational sense) in a number of ways. Local

groups may become avenues to mobility, since they involve local chains of acceptance or rejection. A lawyer is generally disbarred by the *local* bar association for *local* as well as extralocal definitions of malpractice. Or, for example, admission to the medical staff of a hospital often is a function of local rather than medical criteria of acceptance, proving of great consequence for the *career* of the doctor.

3. The position a person has in relation to community ends or values affects "*general position*" in the community. One may be a waitress in an occupational sense, but a prostitute in the community where she works. And, one community may be more tolerant of the prostitute than another, since the value structure may be more tolerant or the local police controls less effective.

4. The choice of the community in which a person will pursue his occupation, particularly if it is a career occupation, and the kind of mobility he experiences probably are a function of his general status in his community of orientation. In general, a person who aspires to upward mobility will move out of his community of orientation if it is a small one where his previous status is communicated. Out mobility from a community, particularly small ones, may therefore be as much a function of general status in the community as it is of "opportunities" apart from status. For, the opportunities will be filled by persons whose known status is consonant with aspired or achieved status, or by immigrants whose previous status is not generally known and communicated. The large community will differ substantially from the small one in this respect, for it is in the large one that status anonymity is more readily preserved.

5. The selection of an occupational status is to some degree a function of the person's willingness to move from his community of orientation. The occupational structure of a community may limit the choice of a career by restricting opportunities to enter or inherit a given occupation.

6. Communities may vary not only in their status-conferring properties but in the degree to which they condition propensities to upward and outward mobility. These differences among communities are a combined function of the value structure and the organizational system. Some school systems, for example, will strongly emphasize achievement and so organize the curriculum and related activities that upward and out mobility is facilitated while others will retard it.

It of course is unclear from the controversy in the literature about the characteristics of "community" or "mass" stratification what behavior is to be explained by either approach. It seems reasonable to postulate that local status determines locally oriented behavior while "mass" status determines mass behavior. To use either status position to predict behavior in the other system relations may be to reduce the predictive power of our variables. The point to be recognized here is that community system variables have theoretical value in stratification theory primarily to explain behavior in the local arena where status is exercised. For example, one might characterize communities in terms of their stratification system and/or some other attributes of their organization (the independent variables) and then show through comparative analysis how these affect the process of decision making in

the community (e.g., the power structure and how it functions) and the consequences of the process for the community.

SUMMARY

This paper makes the suggestion that much research on communities fails to meet two important criteria which will permit the development of generalizations about communities. The first failure is that the scientific comparative approach and the techniques of multivariate analysis are not generally applied to the design of community studies. The second failure is that a distinction seldom is maintained between the theoretical properties of communities and properties which are properly classified in other systems. The real frontier of community research is to correct these failures in our theory and design of community research. Like all criticisms, this one suffers from the fact that some research studies do conform to the models briefly discussed in this paper. What merit this discussion has then, if any, may lie in calling attention to these models rather than to our failures.

A. F. WILEDEN

The Sociologist's Role in Public Policy Discussions

Rural sociologists have pioneered in the development of a public policy discussion emphasis within the Agricultural Extension Service. They encouraged it as an educational method for coping with many of the problems of an increasingly complex society, as a means of citizen involvement and of increasing citizenship participation in public affairs, and as a way of dealing with many social and economic problems of a rather highly controversial nature. The importance of this emphasis is now officially recognized in the Extension Service's *Statement of Scope and Responsibility*.

Because of this recognition it is now doubly important that rural sociologists take a fresh look at the situation, lest the use of the discussion method become generally accepted as just another method of communication or be limited to areas of economic concern. The sociologist can well concern himself with the study and further development of this method as a part of his concern for the total group process; he can properly suggest and encourage its use as a means whereby groups can consider some of their more perplexing and controversial problems; and he can use it as a means of disseminating much of his own subject matter. These are a part of his responsibility as a student of society in his chosen professional field.

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PUBLIC policy discussion is one of those terms that has different meanings to different people. Professional workers at the national or state level, who are encouraging this emphasis, undoubtedly view it as a means of encouraging large numbers of people to acquaint themselves with national and state issues. Agricultural economists, who today are very largely taking the leadership in rural areas, think of policy discussions as a technique for encouraging large numbers of people to become conversant with areas of economic subject matter. Local people who are participating in it think of policy discussions as a method of local group involvement in matters of public concern.

We recognize, of course, that all these are valid and constructive points of view. However, from the point of view of the sociologist these

are each in themselves only partial approaches to a much broader field. To the sociologist, public policy discussions are one form of popular application of the group process to present-day situations and problems. His concern as a sociologist is both with method and with content from both the local and the broader group points of view. He views public policy discussions as a step in the group decision-making process, regardless of levels or areas of concern or of specific points of view.

WHY THIS PRESENT-DAY CONCERN?

Difficulty in coping with problems of a complex society: Probably a major reason for this present-day interest and concern in public policy discussions is the apparent difficulty that the American people are having in understanding complex and often controversial social situations and formulating acceptable policies and plans for coping with these situations. To be specific, at the national level we are having great difficulty in formulating acceptable programs for commercial agriculture. Also, we do not seem able to develop and to agree on basic policies defining our relation to the world situation. At the local level we seem to be having unusual difficulty in keeping abreast of the changes that are taking place, of arriving at a mutual understanding of the many adjustments that are believed to be needed in such a rapidly changing society, and of developing plans for making these adjustments.

Concern for increasing citizen participation: In our type of society, which we call a democracy, we propose to assume that every citizen should have a part in the formulation of these policy decisions. Furthermore, we propose to assume that the combined judgment of a well-informed citizenry is more likely to make decisions in the best interests of "we, the people" than the judgment of any single person or small group of persons, regardless of how well informed or good intentioned they may be. As Henry A. Wallace has put it, we believe in the judgment of the "common man."¹ The problem is to make that theory, the theory of the rights of the "common man," work. And as society becomes more complex, the problem of making that theory work becomes more difficult.

Many problems are highly controversial: The situation is further complicated by the fact that many of the possible alternatives stem from very different cultural and social backgrounds and from different social, economic, and political points of view. In other words, many of the problems are of a controversial nature—some very controversial, dealing with people's emotions as much or more than with their powers of logical deduction or reason. We seem to have our greatest difficulty in dealing with the emotional aspects of these problems.

These are some of the influences that have led to present-day interest in and concern with the development and refinement of the group of

¹*New Frontiers* (New York: Reynal and Hitchcock, 1934).

social processes now popularly known as group discussions. Many educational disciplines have contributed and are contributing to their development. Sociology certainly should be one of these disciplines.

THE EARLY BEGINNINGS

It is with a sense of pride that we often refer to the method of the New England town meetings and even eulogize it as a type of "pure democracy." The town meetings represent one of the earlier methods of policy discussions. They were both problem-centered and action-oriented. They represented a method of dealing with local situations. At a later date and at the other extreme of the pole of concern was a type of policy discussion dramatized by the famous Lincoln-Douglas debates. These too were problem-centered and action-oriented, but they represent a method of dealing with national situations. Other than these two extreme methods, it is somewhat surprising that, until quite recently, so little concentrated attention should have been given to discussion method in different types of situations. The first, with its emphasis on involvement of all the electorate, and the second, with its focus on the exploring of an issue before an audience by its critics and by its defenders, represent two extremely different applications of the discussion idea to different types of subject matter under quite different situations. For some reason, in neither case was the method a central focus of attention.

Concern with method had its beginnings in the 1920's: Outside the formal classroom, among the first persons to be systematically concerned with the discussion method as a group education process were A. D. Sheffield² and H. S. Elliott.³ They proposed to analyze methods in terms of their adaptability to different group situations. It is probably no accident that they did this at the behest of the Y.M.C.A., an increasingly expanding group dedicated to the strengthening of the democratic idea, particularly among men and boys. "Study groups" and "forums" occupied a conspicuous part of their program. I am sure that Sheffield and Elliott and the efforts of the Y.M.C.A. in the group-discussion field had a great deal to do with the introduction of the group-discussion idea in the land-grant colleges.

As early as 1926, J. H. Kolb, who had been a Y.M.C.A. secretary, suggested to this writer that possibilities in the development of discussion method might properly be explored as a means of acquainting farm people with some of the problems being brought to the Agricultural Extension Service. Out of a background of experience as a collegiate debater, the writer of this paper then prepared a little circular⁴ encouraging the use of debate as one means of exploring such problems.

²*Creative Discussion* (Inquiry Press, 1927).

³*The Process of Group Thinking* (New York: Association Press, 1928).

⁴J. H. Kolb and A. F. Wileden, *Why Not Have a Debate* (Wisconsin Spec. Cir.; Madison, Feb., 1927).

However, little of a systematic nature was done until 1929, when the writer of this paper was appointed "extension rural sociologist" at the Wisconsin College of Agriculture and given the assignment of developing a state-wide program of group discussion as a part of that assignment. It soon became obvious that the twentieth century replica of the New England town meeting under Wisconsin conditions did not hold forth much promise and that the method of political debate of earlier decades was not too well adapted to dealing with the problems at hand. What were needed were methods of introducing the increasing amounts of socioeconomic information that was becoming available to already organized group situations, most of which were of the special interest type.⁵ The need was for the development of techniques by which such groups could evaluate this information in terms of their own situations and experiences and arrive at decisions as to what should be done.

Developed as a team arrangement: Although a part of this job was believed to be that of the sociologist, it obviously went beyond the field of sociology. Accordingly, a team arrangement was worked out involving H. L. Ewbank, of the Speech Department, whose special field from the formal educational point of view was the use of discussion method. Also, as a part of the team were a number of so-called subject-matter specialists selected from the fields of subject matter under consideration at the time. Agricultural economics and rural education contributed most heavily. Pilot experiments were set up out in the state, different types of group-discussion methods were tried under different situations, and the results were analyzed and compared.⁶ This early experience with discussion method culminated in the publication of two Wisconsin College of Agriculture circulars, the first of a preliminary nature⁷ and the second of a more permanent nature.⁸ These were probably the first circulars of their type published by a state agricultural extension service.

Secured national emphasis and recognition: Meanwhile, the Des Moines Forums were being established under the direction of J. W. Studebaker, later United States Commissioner of Education. Also the United States Department of Agriculture was becoming interested in the expanded use of discussion methods as a means of broadening the

⁵J. H. Kolb and A. F. Wileden, *Special Interest Groups in Rural Society* (Wisconsin Res. Bull. 84; Madison, 1927) and *Making Rural Organizations Effective* (Wisconsin Bull. 403; Madison, 1928).

⁶Some of these early experiences were analyzed in detail in a paper presented before the National Meeting of the American Association for Adult Education, held in Milwaukee in 1935, and later published as Wisconsin Ext. Cir. 163, *Five Years of Public Discussion in Rural Wisconsin* (Madison, 1935).

⁷A. F. Wileden and H. L. Ewbank, *How to Conduct Public Discussions* (Wisconsin Stencil Cir. 140; Madison, 1933).

⁸A. F. Wileden and H. L. Ewbank, *How to Conduct Group Discussions* (Wisconsin Ext. Cir. 276; Madison, 1935).

basis of understanding and of decision making on some of the more controversial problems then facing the Department. Both of the earlier experimenters with the use of discussion method in Wisconsin were called in to assist the USDA in the development of such an emphasis.

At about the same time, M. L. Wilson, for a while Under Secretary of Agriculture and later Director of the Agricultural Extension Service, gave the movement considerable impetus.⁹ First Carl F. Taeusch and later A. Drummond Jones were called to the Department to organize and administer such a program. Personnel were assigned to this program both in the USDA and in a number of states, and considerable published materials were prepared both in the method and subject-matter fields. M. P. Anderson and later Bruce Cartter were given this assignment in Wisconsin. Although there has been much wavering on the part of rural sociologists, today the field of "public policy" appears to be deeply entrenched as a part of the agricultural extension program. It is one of the nine major areas of future program emphasis recently proposed by the Extension Committee on Organization and Policy of the Land-Grant College Association. Indicating what people are expecting of the Extension Service, the report points out: "They are turning to the Extension Service, as a readily available informal educational service, for help in acquiring facts and for methods of analyzing and appraising these facts."¹⁰

WHERE DOES THE SOCIOLOGIST COME IN?

You may be wondering at this moment why we have gone the long way around in arriving at the specific assignment for this paper, but the answer should be obvious. To date the rural sociologist has been related to the public policy discussion program in three ways: (1) out of the background of his interest and training in the group process, he has encouraged the use of group-discussion method; (2) likewise out of the background of his interest and training he is a student of, and an experimenter in the use of, the group-discussion method; and (3) much of his body of subject matter is best made available to the public through the use of discussion method. Let me briefly elaborate on each of these areas of concern of the rural sociologist.

He encourages the use of group-discussion method: Sociology has brought to agricultural extension work new points of view and a new focus compared to the more traditional experience and points of view held by many other extension workers. Sociology, in the broad sense, is concerned with people in their group relationships. Traditionally, agricultural extension work has usually been more concerned with

⁹M. L. Wilson, *Democracy Has Roots* (New York: Carrick and Evans, 1939).

¹⁰*The Cooperative Extension Service Today: A Statement of Scope and Responsibility* (American Association of Land-Grant Colleges and State Universities and the Federal Extension Service, USDA, April, 1958).

crops and livestock and things and with people only as they as individuals and working in groups contribute to these material things. True, the Extension Service from its beginning has been doing work through groups and on a broader group basis, but, it has not been inclined to think of groups as entities for objective study and concern. Sociology has placed emphasis on this area of concern, this changed point of view, in extension work.

We should not be surprised, therefore, that as extension rural sociologists attempted to discover and develop their field in an action-oriented universe, such as extension work, they should be confronted with the necessity of discovering ways of working with and between people in group situations and of making this knowledge available as quickly as possible to extension workers and others working in such group situations. The experiments in Wisconsin mentioned above, crude as they appear now in retrospect, were only a part of this effort across the country. Early group efforts were under way in a number of other states. Stacy was working away at them in Iowa, Schmidt and Tom in Ohio, Hummell in Missouri and Virginia, Gaines in Nebraska, Duthie and Polson in New York, Ayler in Kentucky, Frame and Rapping in West Virginia, and Lindstrom in Illinois. They were each taking a somewhat different approach, and it so happened that we in Wisconsin and Schmidt in Ohio were, among other things, exploring the discussion method. We found lots of encouragement and support from many quarters and significantly a very receptive audience among local rural people themselves. We found in the use of the discussion method, a very effective set of techniques whereby people might come to work together more effectively in group situations. We, therefore, quite naturally encouraged their extended development and use.

I pause at this point to say that this task is far from completed. Even in Wisconsin, where the Extension Service has been encouraging a policy discussion program for almost three decades, repeatedly further encouragement is necessary. It seems so much easier to depend on the outside specialist to make your decisions for you, providing, of course, that it does not cost you anything or disturb the *status quo*. We find ourselves even challenging the methods of people who propose to be policy discussion specialists, but whose interpretation of policy discussion is as a way to "put over" the point of view that they represent. There is still need for the sociologist, among others, to encourage a group method that makes participation in group thinking and local policy determination possible.

He is a student of group methods and processes: As already pointed out, the sociologist's field includes that of group organization and analysis, of group relationships, and of group processes. This takes him into the center of the field of group-discussion method. What types of

groups are best adapted to different types of situations? How can new ideas be introduced into a group and call forth a maximum of objective thinking and a minimum of unthinking opposition? How can people with divergently different points of view come to understand each other? How can people in these varying and complex social situations develop mutual confidence and agreement? And how can they be brought together in terms of an action program? These are a few of the problems that concern the sociologist and are involved in the use of discussion method.

These are all aspects of the group decision-making process, in which the sociologist certainly has as great concern as he does with the individual decision-making process. Many of our profession are currently analyzing and interpreting the processes by which farm people are encouraged to accept new ideas, and the five stages of the diffusion process—awareness, interest, evaluation, trial, and adaption¹¹—are being broadly accepted and adapted to varying social situations. Can we not now expand our efforts into the field of the group decision-making process?

As already indicated, early efforts of sociologists in the group-discussion field were, under the duress of the situation, more promotional and experimental than technical. Neither interest nor concern was yet developed to the point either within or without the field of sociology where personnel was made available to study these intragroup processes. Only today are we beginning objectively and systematically to analyze these processes. Probably one of the first of these analyses is the study recently completed in Indiana by J. K. McDermott of the decision-making processes involved in the rural development program in one of their pilot low-income counties.¹² This was very largely a participant-observer study. Cannot more rural sociologists assume the task of making similar studies under somewhat different field situations? There seems to be no question as to the need or the opportunity.

Rural sociologists seem to have been shying away from this field of study and experimentation rather than exploiting the opportunity. Maybe we have been waiting for a new approach, such as McDermott has opened up. Or maybe the new stimulus will be such a broader approach to the study of group processes as George Beale is suggesting elsewhere on this program.¹³ It is possible that the proponents of and

¹¹North Central Regional Rural Sociology Subcommittee on the Diffusion of New Ideas and Farm Practices, *How Farm People Accept New Ideas* (Iowa Agr. Ext. Serv. Rep. 15; Ames, 1955), and *Bibliography of Research on Social Factors in the Adoption of Farm Practices* (Ames: Iowa State College, 1956).

¹²J. K. McDermott, "Public Decision Making in Economic Development in a Southern Indiana County" (unpublished Ph.D. thesis, University of Wisconsin, 1958).

¹³"A Social Action Model," as worked out by the North Central Regional Rural Sociology Subcommittee on the Diffusion of New Ideas and Farm Practices.

specialists in public policy discussions, unless they give continued study and attention to the development of their methods as methods, may be the very persons who lead to a loss of public confidence in discussion as a method—and this can happen. I believe that sociologists have proved their interest in discussion method as a type of group process and are by point of view and training among the best equipped of any social scientists to continue development of it as a useful technique in the social process both from the research and the action points of view. We cannot delay action programs until research gives us all the answers.

Much of his subject matter is best taught through the discussion method: I think you will agree with me that the sociologist, whether he is serving as a research worker or a teacher, is not a reformer. His responsibility is to come to understand people both as individuals and in their group relationships and to pass on this understanding to his students, to his fellow workers, and to the public at large. His concern is to discover and develop this understanding. Since his subject matter concerns people, it is often controversial. Decisions depend upon backgrounds, experiences, and personal values and must vary from person to person and from situation to situation. As a scientist or as a teacher, the sociologist's task is to describe situations, indicate probable changes or trends in situations, and to point out the possible implications of various possible alternative decisions (or lack of decisions).

Discussion provides one of the best methods of doing these things. That is probably why the agricultural economists are becoming increasingly interested in it. It is peculiarly adaptable to their type of subject matter, as it is to ours. As a matter of fact, in many places today, I am sure public policy discussions are considered almost exclusively, if not exclusively, an area of economic concern.¹⁴ In my judgment, it is unwise, and most unfortunate for the development of the field of sociology, to let this happen, although as a sociologist I am gratified to discover the increasing acceptance of the use of the discussion method by economists, political scientists, journalists, and people in many other disciplines.

One of the most important of our fields of subject matter at the present time is that of population and population changes and trends. Local people everywhere are interested in this field because it affects every phase of their organizational and group life. All of the public and private agencies and organizations are interested because these trends vitally affect their future plans and programs. This field of population changes and programs affected by these changes are affording us many opportunities to use the discussion method in acquainting people with these trends and their implications. In Wisconsin they have been at the center of an extensive program-planning or program-projection empha-

¹⁴See *Increasing Understanding of Public Problems and Policies* (Farm Foundation, 1955).

sis in a number of counties.¹⁵ A related emphasis has been with the expansion of the social security program for farmers. In both of these fields rural sociologists have provided much background information and have suggested alternative possibilities for dealing with situations. Other county and state extension staff members have been a part of the team in helping to analyze and understand situations and in suggesting possibilities. The final decision, in each case of course, is made by the local people themselves in terms of their backgrounds and their respective local situations.

Another opportunity for sociologists to use the discussion method is in connection with the rural resource development program that has been formally established in a number of selected counties over the United States. Although these counties have been chosen primarily for their low-income status, low income is a relative thing, and once a county undertakes such a program, the entire county is involved. This includes urban as well as rural people, regardless of their income or employment status. Interestingly, the idea of working with people in the most complete development of their resources, both natural and human, is so compelling that the basic idea rapidly spreads to other counties. Again the policy discussion technique is proving itself most usable in the many local community development situations, whether the focus is on conservation, industrial development, school reorganization, better health services, or delinquency problems. Sociologists are in a unique position to contribute out of the background of their subject matter in all of these fields.

WHAT SHOULD BE THE ROLE OF THE SOCIOLOGIST

I now come, in conclusion, to my original question, "What is the sociologist's role in public policy discussions?" It would be presumptuous for one person to try to answer this question with even any degree of finality. It is something that needs to be studied and discussed. Also, the answer must vary from one situation to another because of the varying backgrounds and points of view of the persons involved. It must vary according to the interests and abilities of the sociologist involved.

However, recognizing these differences, it appears as though the sociologist can well be involved in any or all of the three ways enumerated above. He can properly suggest and encourage the use of discussion method as a means whereby groups may consider some of their more perplexing and controversial problems, he can concern himself with study and further development of the method as a part of his concern for the total group process, and he can use discussion method as a means of extending much of his own field of subject matter. These are a part of his opportunity and of his responsibility as a student of society and as a teacher in his chosen professional field.

¹⁵Such background discussion materials have been brought together and presented in Oconto, Douglas, Burnett, Bayfield, Iron, and Price Counties.

T. LYNN SMITH

Fragmentation of Agricultural Holdings in Spain

Fragmentation of holdings denotes the situation in which the average farm consists of numerous small parcels scattered haphazardly about in the area within a given rural community. In Spain as a whole there is an average of 17 separate tracts per farm, and the phenomenon is particularly acute in the northwestern one-fourth of the country where the number of parcels per farm runs as high as 84 in the Province of Soria and averages above 40 in Burgos, Cuenca, Guadalajara, Segovia, and Zamora. Most of the social and economic effects of fragmentation are adverse, although the spreading of risks and the diffusion of a family's interests to all parts of the community in which it resides may be advantageous. Fragmentation of holdings makes mechanization of agriculture almost impossible, militates against scientific farming, results in the waste of tremendous amounts of time and energy in going from one plot of ground to another, gives rise to endless bickering and lawsuits between the members of the community, and is an almost insuperable barrier to almost all community and state needs for land.*

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AS sociologists from the United States accept professional responsibilities in other parts of the world, many of them are forced to deal in one way or another with the phenomenon of fragmentation of agricultural holdings. This constitutes an intellectual challenge of the first order of magnitude since this subject has seldom figured in the contemplations and writings of the sociologists in this country. Unlike his situation with respect to such topics as rural community organization, social stratification, land tenure, domestic institutions, and so forth, one who attempts to deal with the subject of the fragmentation of holdings

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must search widely for bits of information on the subject and must himself begin the work of developing an adequate frame of reference for its study.

Most of the textbooks used in our rural sociology courses do not even mention the subject; and with the exception of the studies of the Mormon village communities by Lowry Nelson,¹ one rarely finds a report of research in which it receives any attention. Generally speaking, sociologists and other social scientists in the United States seem to have taken for granted that a farm should consist of a single tract of ground, or at most two or three tracts, and practically no attention has been given to the development of a theoretical frame of reference for use in analyzing and describing situations in those extensive and densely populated portions of the earth in which this definitely is not the case. Occasionally a student trained in the United States finds that he must attempt to remedy this deficiency,² but for the most part social scientists in other countries who have exhibited any interest in the subject have been concerned primarily with consolidation of the widely scattered fragments of which the farms frequently are composed.³ As a result one rarely finds the report of research in which the fragmentation of holdings receives any attention. For this reason it is hoped that this discussion of the phenomenon in Spain will contribute somewhat to an understanding of one of the highly institutionalized social relationships between man and the land the importance of which is by no means reflected in the extent to which it has figured in the thoughts and writings of sociologists.⁴

¹See *The Mormon Village* (Salt Lake City: University of Utah Press, 1952), pp. 140, 191, for brief discussions of the topic.

²See Orlando Fals Borda, "Fragmentation of Holdings in Boyacá, Colombia," *Rural Sociology*, XXI (1956), 158-163, and *El Hombre y la Tierra en Boyacá* (Bogotá: Editorial Antares, 1957), pp. 118-137. An English version of the latter was presented as a Ph.D. dissertation at the University of Florida in 1955.

³For some recent examples of this consult Laurence I. Hewes, Jr., *Japanese Land Reform Program* (Natural Resources Section Report 127; Tokyo: General Headquarters Supreme Commander for the Allied Powers, 1950), pp. 84-86; Bernard O. Binns et al., *The Consolidation of Fragmented Agricultural Holdings* (Washington: Food and Agriculture Organization of the United Nations, 1950). The contributions from those in various parts of the world are published in Kenneth H. Parsons, Raymond J. Penn, and Philip M. Raup, *Land Tenure: Proceedings of the International Conference on Land Tenure and Related Problems in World Agriculture Held at Madison, Wisconsin, 1951* (Madison: University of Wisconsin Press, 1956), pp. 535-564; and *Documentation Prepared for the Center on Land Problems in Asia and the Far East Held in Bangkok, Thailand (22 November-11 December 1954) under the FAO Expanded Technical Assistance Program* (Rome: Food and Agriculture Organization of the United Nations, 1955), pp. 229-236 and *passim*.

⁴A companion study of the fragmentation of holdings in Portugal formed part of a paper, "The Social Relationships of Man to the Land in Portugal," which the present writer presented at the April, 1958, meetings of the Southern Sociological Society.

Fragmentation of holdings denotes the situation in which the average farm consists of numerous small parcels scattered haphazardly throughout the area of a given rural community. It is not to be confused with the phenomenon of tiny farms as such (designated as *minifundia* in Latin America and *microfundia* in Spain), itself a serious problem in extensive parts of the world, although the deficiencies of the handkerchief-sized farm are aggravated if it consists of many widely separated parts. Also there is little point in including under the designation of fragmentation of holdings the numerous large estates of an absentee owner, who from Madrid, Rio de Janeiro, or any other metropolis, exercises a proprietorship over extensive portions of the earth's surface. As used in this paper the term fragmentation of holdings pertains to the situation in which the land farmed by the owner or renter of a small farm consists not of a single tract, or even of two or three plots of ground, but of many pieces widely scattered and wedged in between those cultivated by other members of the community.

EXTENT AND DISTRIBUTION OF FRAGMENTED HOLDINGS

Fragmentation of holdings is acute in many parts of Spain. An observant traveler who goes by train from Paris to Madrid or Lisbon will note, as soon as he has crossed the border, in the Cantabrian Mountains and later in the broad valleys and over the plains of Navarre and Old Castile the mosaic of fragments that surrounds each of the numerous villages and towns. This mosaic consists of a thousand or so bits of land, hardly any of which are an acre in size, arranged in crazy-quilt fashion. Since the various farmers plant their irregularly shaped little plots as their own judgments dictate, the pattern formed by the lines separating the different crops or the same crop in different stages of growth is a concrete expression of the nature and extent of the fragmentation of holdings. If one is inclined to think that perchance the same farmer is inclined to plant a few square yards of one of his tracts to wheat, another few yards of it to maize, and so on and that the lines bounding the patches are not necessarily property lines, a few moments' conversation with any of the peasants will suffice to dispel the illusion. Only when the extensive acreages controlled by a larger proprietor intervene does the heterogeneity of crops cease to indicate the presence of a mosaic of small, highly fragmented holdings.

If one enters Spain from the northeast and travels first through Catalonia, he will have much the same experience. By this route he will also pass through hundreds of rural communities in which the crazy-quilt pattern is the dominant feature of the landscape. Indeed, except in southern Spain, where the *cortijos* of the large proprietors dominate the rural scene, as one travels throughout Spain, abundant evidence of fragmented holdings appears wherever agricultural activities pre-

dominate over stock raising and wherever the rural sections are densely populated.⁵

Two substantial bodies of facts relating to fragmented holdings in Spain have come to the attention of the present writer. The earliest of these is found in the report of a survey made in 1907 by a commission which was established by the national Dirección General de Agricultura, Industria, y Comercio;⁶ and the second is contained in releases of information given out by the statistical division of the Junta Nacional de Hermandades (or the National Brotherhoods of Farmers and Cattlemen) derived from a nationwide agricultural census made by that organization in 1953.⁷ Materials from each of these are presented in turn.

Although the data and observations contained in the first of these are old, it is likely that the situation it describes has become more, rather than less, acute since its publication. The commission distributed a questionnaire to agricultural syndicates, official agricultural organizations, rural credit agencies, farmers' organizations, provincial agricultural councils, agricultural engineers, and individual farmers throughout the country; and its report is based upon the lengthy answers on 98 of the questionnaires that were returned. The first of fourteen queries in the list was as follows: "In this district is there excessive subdivision of rural property and lack of aggregation of that belonging to a single owner?" Of the 98 replies to the second part of this question, 78 were in the affirmative, and the Commission generalized as follows:

Disgregación is great in all the provinces and districts in which property is greatly subdivided, which leads to an excessive number of parcels being cultivated by each farmer, and various *Memorias* [replies] indicate that the cultivation of from 40 to 50 separate parcels is frequent, the extreme being found in the pueblo of Santa María de Ordax [in the province of Leon], mentioned above, where each farmer has from 80 to 120 tracts of land, totaling from 6 to 7 hectares in size, and dispersed over a radius of 5 kilometers.⁸

Particulars given in the reports from the various provinces support the view that in 1907, as currently appears to be the case, highly fragmented farms prevailed throughout most of the northern one-half of Spain. Thus, those reporting from southern provinces such as Almería and Málaga indicated that there was little or no fragmentation

⁵An exception to this generalization is found in scattered localities in which during the last fifty years programs have been carried out to subdivide estates and establish colonies of small farmers.

⁶*Memoria que comprende los antecedentes reunidos, trabajos practicados y proyecto de ley formulados por la comisión nombrada para el estudio de la Concentración Parcelaria* (Madrid: Imprenta de los Hijos de M. G. Hernández, 1908).

⁷The present writer is indebted to Miss Lois Bacon, Foreign Agricultural Service, USDA, for copies of these releases.

⁸*Memoria que comprende*, p. 35.

of holdings in those areas. But for the province of Valdepeñas, considerably to the south of Madrid, the man who thirty-three years previously had been named *Comisario de Agricultura* supplied information indicating that the farms in that area averaged about ten hectares in size and that "the fragmentation of these properties keeps pace with the subdivision indicated, to the extreme that various proprietors number their parcels by the hundreds, and in many cases the worker must travel 30 kilometers or more to move from one to another of his small tracts."⁹

One of the most detailed *memorias* is that for the Province of Madrid, in which farms averaged only one hectare in size. Nevertheless, the area belonging to each proprietor is extremely fragmented and the distances great from one parcel to another, the landowners tending to possess tracts in all parts of each *término municipal* [county] because they say that in this manner if hailstorms and frosts strike they do not damage all of their crops. From this one may deduce that the worst has not yet arrived, but that it will come with the persistence of these beliefs which tend towards the infinite fragmentation of the properties.¹⁰

Likewise from Coruña, Vigo, Astorga, Vitoria, Zaragoza, Tremp, and other northern provinces came reports of extreme fragmentation of the agricultural holdings.¹¹ Even from some sections of a province as far south as Cáceres, the Provincial Council on Agriculture and Stock Raising indicated that "the fragmentation is so lamentable that it has eliminated access to the watering places, has obstructed the natural water courses, and it is not rare to find an owner who possesses 100 parcels which will not total 50 hectares."¹²

But the most extreme case of all was described by the landowner and lawyer from Betanzos in the Province of Coruña, who stated:

For the owner this fragmentation makes diligent management impossible: because even a small proprietor may have 500 parcels, some of them measuring less than an *area* [about 120 square yards], the larger from three to eight *áreas* and very few of more than one hectare, distributed over a territory of four or more square leagues in size; thus, cases are frequent in which one inherits these parcels, possesses them during life, and then passes them on to his descendants without ever seeing most of his tracts, not from lack of interest but because to inspect them would cost a large part of the income they produce.¹³

The 1953 survey or agricultural census conducted by the Junta Nacional de Hermandades secured information province by province of the number of *fincas* (i.e., separate tracts or parcels devoted to agriculture or grazing) and the size of each. It likewise determined the number of farm operators, both owners and renters, who employed

⁹*Ibid.*, p. 199.

¹⁰*Ibid.*, p. 99.

¹¹*Ibid.*, pp. 73, 80-81, 118, 163, 181, 193, and *passim*.

¹²*Ibid.*, p. 69.

¹³*Ibid.*, p. 73.

agricultural laborers, and the number of farm operators who depended exclusively upon their own labor and that of members of their families. By combining the information for the owners and renters, it was possible to determine roughly the number of farms in Spain and the manner in which they are distributed among the fifty provinces of which the nation is composed.

In Table 1 are assembled the data from this survey, indicating that there was in Spain in 1953 a total of 45,681,053 *fincas*, or separate tracts devoted to agriculture or grazing. Of these more than one-half were less than a quarter of a hectare in size, and more than three-fourths were less than a half hectare in extent. Indeed, less than 2 per cent of them contained as much as 5 hectares (or 11 acres). This demonstrates beyond all doubt that the fields from which the overwhelming proportion of Spain's farmers wrest a living are very small. It does not, however, prove that there is no considerable concentration of land ownership and control in Spain, since almost 50,000 of the tracts exceeded 100 hectares in size and one man or one company may own any number of these pieces.

Table 1. The distribution of *fincas* (parcels or tracts) in Spain by size, 1953*

Size of <i>fincas</i> (hectares)	No.	%
Less than .25	26,389,193	57.8
.26-.50	9,324,788	20.4
.51-1.00	5,389,210	11.8
1.01-2.00	2,433,491	5.3
2.01-5.00	1,251,728	2.8
5.01-10.00	456,669	1.0
10.01-25.00	241,447	0.5
25.01-50.00	102,933	0.2
50.01-100.00	44,906	0.1
100.01-500.00	34,066	0.1
500.01-1000.00	10,551	†
More than 1000.00	2,071	†
Total	45,681,053	100.00

*Source: Compiled and computed from data released by the Junta Nacional de Hermandades, based on the *Encuesta Agropecuaria* it conducted in 1953.

†Less than 0.1 per cent.

Through the procedure mentioned above, it was estimated that there was in Spain in 1953 a total of 2,671,692 farm operators and the same number of farms. This total does not include 308,601 *aparceros*, or sharecroppers, but even if it did the general picture would not be changed substantially.

Through the procedures mentioned above, the number of farm operators, which is the same as the number of farms, was estimated for Spain as a whole and for each of the fifty provinces. These estimates were then divided into the number of *fincas* to give the average number of parcels per farm. As it stands, the total number of farms divided into the number of parcels gives an average of 17 tracts per farm for Spain as a whole. If the estimate of the number of farms were to be increased to 3,000,000 by the inclusion of the *aparceros*, or for any other reason, the average would still exceed 15 separate and distinct pieces of property per farm.

These fairly recent data support the conclusion based upon the 1907 survey that fragmentation of holdings is great in northern Spain and of much less consequence in the southern provinces. They indicate, however, that it is the northwestern one-third of national territory, a section bounded by a line extending from the city of Cuenca to San Sebastian near the Franco-Spanish border and another from Cuenca due west to the boundary with Portugal, in which the phenomenon is most pronounced. The extreme of 84 *fincas* per farm is found in Soria, which lies about midway between Madrid and the western extremity of the international boundary with France. However, all the provinces in which there is an average of 20 or more separate plots of ground per farm lie within the designated one-third of the nation's territory. In addition to Soria, they are as follows: Alava, 35 parcels per farm; Ávila, 22; Burgos, 41; La Coruña, 22; Cuenca, 53; Guadalajara, 59; Leon, 31; Lugo, 31; Madrid, 23; Orense, 35; Palencia, 40; Pontevedra, 23; Salamanca, 26; Segovia, 50; Valladolid, 37; and Zamora, 55. On the other hand, the provinces in which fragmentation of holdings is slight are mostly in the southern areas, in the portions of the country in which, late in the fifteenth century or early in the sixteenth, the retaking of the territory from the Moors gave Spanish cattlemen and farmers the opportunity of redividing the land among themselves. Thus the number of pieces of ground per farm was low in the following provinces: Alicante, 5; Cádiz, 1; Córdoba, 4; Granada, 4; Jaén, 5; Málaga, 3; Murcia, 3; and Sevilla, 3. However, the fragmentation of holdings is not great in Barcelona (3 plots per farm), and other sections of northeastern Spain such as Gerona (5), Lérida (6), and Tarragona (4), nor in Castellón (10) and Valencia (6), which lie to the south of them. In all these provinces, however, a few villages of peasant proprietors are found in which the fragmentation of holdings is considerable.

THE DEVELOPMENT OF FRAGMENTED HOLDINGS

The many vicissitudes Spain has experienced, both before and since its territory formed an integral part of the Roman Empire, make it difficult to trace with exactitude the life history of any of its social institutions; and the study of the way in which its highly fragmented agricultural holdings have developed is no exception to this rule. It seems highly plausible, however, to attribute in large degree the extreme fragmentation of holdings presently characterizing the northwestern one-third of Spain to three principal factors: (1) the historical fact that much of this part of Spain never came under Moorish domination; (2) the manner in which settlements were made and expanded during the late medieval period; and (3) the subdivision of holdings by inheritance. Brief comments about each of these follow.

It is well known that the Moors never succeeded in subjecting the mountainous districts in northwestern Spain and that their hold over the plains and valleys of Old Castile was tenuous and short-lived.¹⁴ As a result they never succeeded in erasing from this portion of the map of Spain the patterns of land division and control which went back to much earlier times; and, likewise, after the expulsion of the Moors the Spaniards in these sections did not have a clean sheet upon which to work in remaking the pattern of social relationships between man and the land as was relatively the case in the southern provinces. In brief, some of the causes of fragmentation of holdings in northwestern Spain go back to Roman times or earlier; and this part of Spain is still occupied by a peasant population that for thousands of years has never relinquished its tenacious hold on the land. In the south, in sharp contrast, the pattern has been remade since the days of Columbus and redone to a large degree by the military chiefs who received as a reward for their services large tracts of the land from which the Moors had been banished.

A high degree of fragmentation was a "built-in" feature of the settlements established in ancient and medieval times. On this point, with specific reference to Spain, the following quotation from the 1907 survey, referred to above, is explicit:

The original causes of fragmentation are general in all countries, including our own, and they are: the original communal allotments made, in the settlement of a new region or district, to all the settlers upon a basis of equality; the division of the lands carefully rotated each year into a number of tracts equal to the number of citizens, and the sharing of each of these in the various

¹⁴Gaspar Melchor de Jovellanos, *Informe de la Sociedad Económica de Madrid al Real y Supremo Consejo de Castilla en el Expediente de Ley Agraria* (Madrid: Imprenta de I. Sancha, 1820), contains the most enlightening analysis of the effects of this factor and the consequences of the reconquest upon social organization in Spain that has come to the attention of the present writer. See pp. 18-21, *passim*.

fields, extending the principle of equality to the point of giving to each one lands that were equal in quality, size and location.¹⁸

The authors of this report also cited the subdivision of land by inheritance as a principal factor in producing the severe problem of fragmentation with which they were trying to cope. After describing the extreme case of the *finca* in the community of Vera in La Coruña, which measured 32 square meters and had three owners (one of the land, another of the one walnut tree that grew upon it, and the third of the emphyteutic right to collect an annual rent of six eggs from the property), the *memoria* generalizes as follows:

The process of fragmentation goes on due to the nature of inheritances, which by the principles of the Napoleonic Code, almost universally translated into all languages, and with the divisions made in kind, lead to extremes such as that of the father who has 30 *áreas* of arable land of good quality, 60 of medium quality, and one hectare of bad, leaves three children, and upon his death each of the fields is divided into three.¹⁹

THE EFFECTS OF FRAGMENTATION

Finally, a few comments are offered relative to some of the more obvious social and economic effects of the fragmentation of agricultural holdings in Spain. Most of these are adverse, viewed either from the standpoint of the family, the community, or the society as a whole.

The spreading of risks, however, frequently is cited as a positive feature of fragmented holdings, and certainly natural disasters such as hailstorms, late or early frosts, floods, and so forth are much less likely to destroy an entire year's effort if a family's farm consists of many widely separated tracts than if all the land is one piece. Similarly, a greater diversity of soil types and (in mountainous areas) of climatic zones may be an advantageous feature of fragmented holdings. Finally, the diffusion of the family's interests and activities throughout the entire area of the community, a fact that may contribute to a higher development of primary group relationships at the community level, possibly is a social effect deserving mention.

The negative effects of such a system stand out far more clearly. Among them the following of an economic nature may be listed specifically. (1) The fragmentation of holdings makes the mechanization of agriculture almost impossible, with the result that most of Spain's peasant families cannot substitute modern and efficient methods of tilling the soil for the unrewarding systems of hoe culture and elementary plow culture they have inherited from times long past. (2) Likewise, with fragmentation of holdings developed to the point it is in much of Spain, it is utterly impossible for the average farmer to apply modern methods of scientific agriculture to the production of

¹⁸Dirección General de Agricultura, Industria, y Comercio, *op. cit.*, pp. 9-10.

¹⁹*Ibid.*, p. 11.

crops. (3) A tremendous waste of time and energy is involved in the endless travel from a tract of ground in one part of the community to others at all points of the compass. (4) When holdings are fragmented, an economical combination of agricultural and stockraising enterprises is made extremely difficult if not impossible. (5) When small holdings are divided into many pieces, the proportion of the land that is occupied by balks, or other divisions between the fields, and by paths, or other ways of access, is very high.

There likewise are a number of obvious social disadvantages to fragmented holdings, of which the three following seem to figure most prominently. (1) When myriads of small, odd-shaped parcels make up the arable lands of a given rural community, it is almost impossible for the members of a farm family to get to and from the parcels they till and to do the necessary labor in their fields without infringing in one way or another upon the rights of some of the other farmers. This gives rise to endless bickering, strife, conflict, and lawsuits between the members of the community. (2) Access to, control of, and use of essential water resources frequently rival the use of the soil itself in generating and perpetuating within the community ill feelings, social conflict, and protracted and expensive resorts to the law. (3) The intricate pattern of small pieces of individually owned property constitutes a legal barrier of the first magnitude to almost all community and state needs for land, and the expense involved in effect puts society in a strait jacket in all things associated with its exercise of the right of eminent domain.

Managerial Selectivity of Intensive Extension Work

Participants in Farm and Home Development in three states are compared with samples of nonparticipating families of similar ages on characteristics considered indirect indicators of managerial ability to determine if there is selectivity in the recruitment of families and whether such selectivity is likely to influence the effects of Farm and Home Development. Data concerning prior educational and occupational experience, tenure and financial status, communication and information-seeking behavior, and attitudes and values functionally related to management are analyzed. These lead to the conclusion that the process which has occurred in the recruitment of participants in all three states resulted in a group which is above average in managerial ability. Farm and Home Development does not seem to be a method used in these states to reach low-income families. The effectiveness of Farm and Home Development must therefore be measured by comparison with groups of similar managerial ability.*

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MANY of the characteristics (such as higher education, higher income, larger farms) which differentiate those who make use of the Agricultural Extension Service from those who do not probably reflect differences in managerial ability.¹ That is, users of the Extension Service tend to be somewhat better-than-average managers. In fact, the very use of the extension program as an information source, itself reflects the basic

*This paper is based on research done with the support of the North Carolina, Washington, and Wisconsin Agricultural Experiment Stations and Cooperative Extension Services. The North Carolina and Washington studies were also supported by the W. K. Kellogg Foundation as part of a series of studies of intensive extension methods which the Kellogg Foundation is sponsoring. I am indebted to C. Paul Marsh, W. L. Slocum, and E. A. Wilkening for their part in the research cited in footnote 4, which forms the basis of this paper, and for their critical appraisal of the paper.

¹A. Lee Coleman, "Differential Contact with Extension Work in a New York Rural Community," *Rural Sociology*, XVI (1951), 207-216; Herbert F. Lionberger,

managerial principle of securing the best available knowledge.² Does this generalization also apply to participants in Farm and Home Development, who are involved in lengthy and repeated interaction with extension staff workers?

The legislative hearings on Farm and Home Development give the impression (but do not specifically state) that one intent is to reach low-income groups not now using the Extension Service.³ Yet the research on differential contact with it would lead to opposite expectations, i.e., that use of *intensive* extension methods is likely to be even more selective of above-average managers than is the usual extension program.

The problem of differential participation may also be important in evaluating the effects of Farm and Home Development. If intensive extension methods tend to involve farmers with above-average managerial ability, then great caution is needed in interpreting the achievements of intensive methods, since the families participating might make above-average progress on their own or with the help of other agencies or information sources. Moreover, knowledge of such differences can be used by extension workers to help revise techniques in order to reach those segments of the population not currently being reached.

This paper is therefore designed to explore the problem of the managerial selectivity of Farm and Home Development. In the absence of direct measures of managerial ability this will be done by examining those aspects of the experience, behavior, and attitudes of participants in Farm and Home Development which are indirect indicators of managerial ability.

THE POPULATIONS STUDIED

Data for states in three regions of the country are available: North Carolina, Wisconsin, and Washington. These states are among several which are currently engaged in research on the effectiveness of Farm and Home Development. The analysis reported in this paper is based on the data presented in mimeographed and other unpublished reports

Information Seeking Habits and Characteristics of Farm Operators (Missouri Agr. Expt. Sta. Res. Bull. 581; Columbia, 1955); W. L. Slocum, O. J. Brough, and M. A. Straus, *Extension Contacts, Selected Characteristics, Practices and Attitudes of Washington Farm Families* (Washington Agr. Expt. Sta. Bull. 584; Pullman, 1958). A more complete bibliography will be found in North Central Regional Rural Sociology Subcommittee on the Diffusion of New Ideas and Farm Practices, *Bibliography of Research on Social Factors in the Adoption of Farm Practices* (Ames: Iowa State College, 1956).

²Glenn L. Johnson and Cecil B. Haver, *Decision-Making Principles in Farm Management* (Kentucky Agr. Expt. Sta. Bull. 593; Lexington, 1953), and Glenn L. Johnson, *Managerial Concepts for Agriculturalists* (Kentucky Agr. Expt. Sta. Bull. 619; Lexington, 1954).

³U.S. Senate, Subcommittee on Appropriations, *Hearings, Agricultural Appropriations* (84th Congress, 2d sess., Washington, 1956), p. 200.

of these studies,⁴ together with some additional tabulations for the Wisconsin and Washington samples.

The three studies were designed to compare families participating in Farm and Home Development with a control group not participating. However, differences in the population and the program in each state resulted in a number of differences in the type of sampling procedure and in the data available for analysis. Fortunately these differences are not great enough to preclude a fair degree of comparability between the three studies.

*Selection of participants:*⁵ In all three states the participating families were chosen without reference to the research problem by county extension staffs. This was essentially a self-selection process. That is, the availability of Farm and Home Development was made known, and the participants are those who requested to be included. There was considerable variation between counties, and in some cases families were selected by county staff or county committees as being desirable participants.

The North Carolina data are based on a random sample of 50 per cent of these participants in three counties. They were interviewed in 1955. The Washington data are based on all families participating in Farm and Home Development in the survey year (1955-1956), and the Wisconsin data on all families in nine counties who were participants in 1955.

Selection of controls: Recognizing the likelihood of differences between the participants and a cross section of farm families, each of the three studies attempted to eliminate some of these differences in the original selection of the control group samples. In North Carolina random samples were screened in each county to secure cases for the control groups of nonparticipants which would roughly match the experimental group in age, tenure, and size of operation. Overall, the North Carolina control sample consists of approximately fifty families from each of three counties, chosen to match approximately the fifty experimental families from each of these counties.

Less intensive attempts at securing comparable controls were made in the Washington and Wisconsin studies. In Wisconsin, six counties from among those planning to initiate work in Farm and Home Development were chosen, and a random sample of approximately one-fourth

⁴W. W. Linder, Herbert A. Auerbach, and C. Paul Marsh, *A Comparison of Participating and Non-Participating Families in Farm and Home Development* (North Carolina Extension Evaluation Studies 1; Raleigh; 1957); W. L. Slocum, M. A. Straus, and G. A. Kristjanson, *The Demand for Extension Service Assistance among Farm and Home Planners and Other Young Farm Families* (Washington State Dept. of Rural Soc. Preliminary Report; Pullman, 1956); Walter G. Schroeder, "Characteristics of Clientele Who Volunteer for Intensive Work with the Cooperative Extension Service" (unpublished M.S. thesis; University of Wisconsin, 1957).

⁵The term "experimental group" is also used in this paper to refer to the participants.

of the townships within each county was chosen. All farm families within the sample townships were interviewed if they met the following criteria: (1) household head under 45 years of age; (2) at least half of the family's cash income from farming; (3) farming for ten years or less. This resulted in a sample of 614 families.

In Washington the control group was selected from a random sample of 15 counties. Within each county all those listed in the personal property tax rolls as having agricultural equipment were considered in the universe of study, and a sample of 20 from each county was selected with the aid of tables of random numbers. Additional selection criteria were: (1) male household head under 45 years of age, and (2) at least \$750 worth of farm products sold in the year preceding the survey. This resulted in a sample of 292 families.

It will be noted that all three of these studies made some attempt at matching or screening. This partial matching is likely to have also affected comparison on unmatched variables so that the differences reported in this paper are probably *low* estimates of the ways in which those participating in intensive extension methods differ from a cross section of the farm population.

EDUCATIONAL AND OCCUPATIONAL INDICATORS OF MANAGERIAL ABILITY

Formal education helps provide the mental skills and some of the knowledge needed for the exercise of the managerial function, and Table 1 shows that for all six comparisons between participating and control group families, the participators had a higher average number of years of schooling. In Wisconsin and especially Washington differences in the percentage of operators attending college were also found. Ten per cent of the Wisconsin participator group had attended college as compared to only 2 per cent of the control group.⁶ In Washington 74 per cent of the participators attended college compared to only 15 per cent of the control group.

Consistent with these educational differences are the data on nonfarm work experience, especially for the Washington study. A considerably larger proportion of the Washington *control* group had *no* full time occupational experience outside of agriculture (29 per cent versus 14 per cent) but no significant difference was found in Wisconsin (67 per cent versus 61 per cent). Perhaps more relevant as occupational experience contributing to managerial skill is the type of nonfarm work experience. For this purpose the nonfarm occupations reported have been divided into two categories, "Headwork" and "Handwork," the former including professionals, proprietors, managers, and clerical and

⁶Differences between participators and controls are significant at $p \leq .05$ unless otherwise stated. Chi-square has been used for all tests even though means or medians are sometimes used to summarize differences in the distributions from which the chi-square values were obtained.

Table 1. Characteristics of Farm and Home Development participants and controls in three states

Characteristic	N. Carolina		Washington		Wisconsin	
	Par-tic.	Con-trol	Par-tic.	Con-trol	Par-tic.	Con-trol
<i>Education</i>						
Operator's general education (mean)	9.4*	8.7	13.8†	11.4	10.8†	9.4
Wife's general education (mean)	11.3†	9.6	14.1†	12.0	11.7†	10.4
Enrollment in H.S. vocational agr. (%)	—	—	32	33	20†	16
Enrollment in 4-H (%)	—	—	21	18	39*	28
Enrollment in veterans farm training (%)	—	—	24	19	23	20
Enrollment in short course (%)	—	—	19†	7	12†	4
Enrollment in college agr. (%)	—	—	17†	4	—	—
<i>Farm size</i>						
Crop acres (mean)	36*	22	—	—	129*	110
Total acres (mean)	116†	68	103†	88	194*	170
<i>Extension contacts</i>						
Office visit (%)	95*	88	84†	39	—	—
Meeting or discussion (%)	82†	61	65†	31	—	—
Farm visit (%)	—	—	96†	29	—	—
Extension demonstration (%)	29*	19	27	27	—	—
Phone call (%)	—	—	59†	23	—	—

* $p \leq .05$.† $p \leq .01$.

sales people; and the latter including skilled trades and semiskilled and unskilled work. For the Washington sample the nonfarm work experience reported was in the "Headwork" classification for well over a third (36 per cent) of the participants as compared to less than a fifth (19 per cent) of the controls. No significant differences in this direction appear in Wisconsin, where 19 per cent of the control operators reported occupations of the "Headwork" type as compared to 21 per cent of the participants.

Not only are the participants better educated generally, but, as Table 1 shows, more of them have had the advantage of agricultural education. The Washington groups were compared by means of an

agricultural education score,⁷ which revealed that the participators had an average score of 1.7. This is almost twice as large as the average score for the controls, which was 0.9. Inspection of Table 1 shows that if this score had been available for the Wisconsin sample the results probably would have been similar.

Consistent with the operator differences, the Wisconsin and Washington studies show a slight tendency for more of the participating wives to have been 4-H members (41 per cent of the Wisconsin participators compared to 34 per cent of the controls, and 32 per cent of the Washington participators compared to 23 per cent of the controls). The Washington data also show that 12 per cent of the participating wives, compared to 7 per cent of the control wives, had taken courses in home economics in college. However, none of these comparisons are statistically significant.

Important differences in the participation of children in 4-H work were found. Seventy-eight per cent of the North Carolina participating families had children between 10 and 20 in 4-H, compared to only 48 per cent of the controls, and for Washington the corresponding figures are 70 per cent of the participators compared with only 39 per cent of the controls.

TENURE AND FINANCIAL INDICATORS OF MANAGERIAL SKILL

Consistent with the findings of other studies of differential contact with extension work and adoption of recommended farm practices,⁸ families electing to participate in Farm and Home Development in all three states were found to have larger farms than the control groups. Table 1 shows that this larger size of farm holds true even for North Carolina, where some attempt was made to match the participating and control families in terms of farm size and where these differences applied to both total acreage and crop acres.

The relation between tenure and participation in Farm and Home Development is also consistent with previous studies. In North Carolina, 87 per cent of the experimental families owned their farms, compared to the 60 per cent which census data reveals as characteristic of the counties in the study.⁹ The Washington figures are 69 per cent owners for the participators, compared to 53 per cent of the controls; and in Wisconsin 57 per cent of the participators were classified as owning most of their land, compared to 41 per cent of the controls.

⁷This score was computed by assigning one point each for participation in 4-H, vocational agriculture, and short course, two points for veterans' farm training, and three points for college major in agriculture.

⁸See note 1.

⁹However, the matching procedure was successful in securing a control group with 82 per cent owners, which is not significantly different from the proportion of owners in the experimental group.

In evaluating these size and tenure differences in terms of managerial skill, it is pertinent that all three studies attempted to equate their experimental and control groups in age and, for Wisconsin, also in terms of number of years that the operator had been farming. In Washington, where the number of years the operator had farmed was not used as a control, it was found that the participators had been farming for *less* time than the controls, the medians being 7.1 and 9.1 years respectively. The Washington participators had also been operating their present farms for a shorter time (4.3 and 7.6 years, respectively). Thus the participators have an advantage in size and tenure despite having had either the same or less time in which to achieve this advantage. This suggests that the participators are a group who have already demonstrated greater ability to make rapid progress toward at least two of the major goals of farm families, operation of a farm of adequate size and full ownership of this farm.

Similar conclusions emerge from a consideration of the financial status of the participator and control groups. Differences in net worth are not significant—the Washington participators had a median net worth of \$29,700 as compared to \$27,200 for the controls, and the Wisconsin figures are \$15,500 for the participators and \$14,700 for the controls. But a look at the financial structure underlying these net worth figures shows that, although there is only a small difference between the average net worth of the participators and the controls, when assets and liabilities are considered separately much larger differences are found—especially in Washington. Thus the median assets of the Washington experimental group was \$41,300, compared to \$34,600 for the controls, a difference of \$6,700. The Wisconsin participators had total assets of \$23,800, compared to \$20,900 for the controls, a difference between the two means of \$2,900. More important perhaps, in order to secure these capital assets the participators have been more willing to assume indebtedness, as indicated by a median debt of \$9,700 for the Washington participators, compared to \$6,300 for the controls. The corresponding Wisconsin figures are \$8,800 for the participators and \$5,600 for the controls. These differences in debt are important, since with an expanding economy and rapid technological change in agriculture, willingness and ability to borrow heavily for productive purposes may be an important managerial characteristic.

Some further evidence on the basis of which superior managerial skill might be attributed to the participators as compared to the controls comes from consideration of a few items of information concerning productive efficiency. Both the Washington and Wisconsin participators reported only slightly higher gross sales than did the controls (8,800 compared to \$8,300 in Washington, and \$7,900 compared to \$7,400 for Wisconsin). But data from the Washington study shows that the participators had lower farm expenses (\$3,900 compared to \$4,400),

thus giving them a higher net from similar gross sales. Differences in yield, although small, also point toward the higher efficiency of the participators. Thus the Washington participators exceeded the yield of the controls on four out of six products for which data were available. Similarly the Wisconsin comparison reveals slight differences in favor of the participators in corn yield per acre and pounds of milk per cow. For the Wisconsin study an index to measure the per cent of recommended farm practices applicable to the particular farm which were adopted is available. This shows considerable difference in favor of the participators: their mean adoption index was 60, compared to 47 for the controls.

COMMUNICATION AND INFORMATION-SEEKING FUNCTIONS OF MANAGEMENT

The extent of social participation is known to be associated with adoption of improved farming technology, with income, and with other factors related to managerial skill and the objectives of Farm and Home Development. One explanation of this relationship stresses the communication functions of social participation. Families with high social participation—especially formal social participation—have available to them more channels of communication with the world outside their immediate locality and perhaps also are more inclined to accept nonlocal groups as reference groups for their own behavior. Consequently they receive both the information and social norms needed for technological change.

Evidence from all three states indicates that a pattern of higher participation characterizes the experimental group families. North Carolina reports data on a formal social participation index, and this shows that the experimental group had a mean score of 20.1, compared to 18.3 for the controls. Moreover, 41 per cent of the control group fell in the lowest score category, compared to only 17 per cent of the experimental group. The Wisconsin formal social participation data also shows a difference in favor of the experimental group families who obtained a mean score of 4.2, compared to only 2.7 for the controls. For Washington a social participation index including both formal and informal participation is reported, and this shows that the experimental group had a mean score of 10.2, compared to 7.7 for the controls.

Some of the specific kinds of social participation differences for the Washington study are shown in Table 2. Greater participation and higher proportion of leadership was also characteristic of the Washington experimental group wives.

Slightly different data pointing in the same direction are available for Wisconsin. Thus in terms of membership 45 per cent of the Wisconsin participators belonged to either Farm Bureau, Grange, or Farmer's Union, compared to 33 per cent of the controls; 87 per cent belonged

Table 2. Characteristics of Farm and Home Development participators and controls, Washington

Characteristic	Operators		Wives	
	Partic.	Control	Partic.	Control
<i>Social participation</i>				
Families visited once a month or more (mean)	7.4	6.1	—*	—*
Farmers with whom work is exchanged (mean)	3.0	2.7	—*	—*
Organizations belonged to (mean)	4.5†	3.6	3.6‡	2.5
Attendance score (mean)	5.9†	4.7	5.7‡	4.3
Organization office in last 5 yrs. (%)	64†	42	60†	40
Public office in last 5 yrs. (%)	24†	14	8†	1
<i>Most important information source used in preceding yr.</i>				
Agricultural agencies (%)	63†	32	21†	7
Mass media (%)	14‡	25	66	74
Friends, neighbors (%)	13	19	8	16
Commercial sources (%)	5†	19	—	—
Other (%)	5	5	5	3
<i>Rural Attitude Profile median scores</i>				
Innovation proneness	76†	56	69†	55
Rural life preference	68†	55	50	53
Primary group preference	65‡	54	63	61
Economic motivation	71‡	59	65‡	54

*Data for entire family are given in operators column.

† $p \leq .01$.‡ $p \leq .05$.

to other farm organizations, compared to 81 per cent of the controls; and 80 per cent of the husbands and/or wives of the participating families belonged to nonfarm organizations, compared to only 37 per cent of the controls. In terms of leadership, 33 per cent of the participating Wisconsin operators had held an office in a farm organization during the past five years, compared to only 15 per cent of the controls, and 38 per cent had held a public office in the last five years, compared to only 19 per cent of the controls.

Whether or not the importance of social participation lies in its communication functions, all three state studies have available information on the extent of contact with scientific sources of farming information. This can be used to test directly the hypothesis that those who volunteer to participate in such intensive extension work are families

who already excel the average farm operator in fulfilling the information-seeking function of management.

In view of the way the participators in Farm and Home Development are recruited, it is to be expected that they will have had more contacts with extension work than the controls. This is confirmed by the data in Table 1.¹⁰ For Wisconsin only presence or absence of contact with extension work is available, but this data is consistent with the North Carolina and Washington findings. Specifically, 91 per cent of the participators reported having had contact with a county agent at some time, compared to only 62 per cent of the controls; and 84 per cent of the experimental group reported contact in the past year, compared with 61 per cent of the controls.

Similar conclusions are reached in the case of the wives. In fact for the Washington samples the differences between participating and control group wives are generally much larger than the operator differences. For North Carolina 27 per cent of the experimental group wives, compared to 15 per cent of the controls, had visited an agent's office during the year preceding the survey, and 32 per cent of the experimental, compared to 18 per cent of the controls, were members of home demonstration clubs. The North Carolina study also revealed differences in the extent to which the participating wives had held positions of leadership in extension activities. For example, 21 per cent held some kind of office in the extension organization, compared to only 12 per cent of the control group wives. In Wisconsin 75 per cent of the participating wives reported some contact in the past with extension, compared to only 45 per cent of the controls; and, whereas 32 per cent of the participators reported contact with extension in the past year, only 9 per cent of the control wives reported such contact.

Turning to other agencies and information sources, the proportion of Washington participators who reported use of the Soil Conservation Service in the previous year does not differ significantly from the controls (61 versus 55 per cent); but 79 per cent of the North Carolina experimental group reported such use, compared to only 54 per cent of the controls. No differences in contacts with vocational agriculture teachers were found in the North Carolina study, but in Washington 19 per cent of the participators reported vocational agriculture teachers as an information source, compared to 10 per cent of the controls.

Data on the most important source of information used during the preceding year obtained by means of a check list of information sources are available for the Washington study and are presented in Table 2. Comparison of the experimental and control groups columns in this table suggests that the control group tends to make more use of the less

¹⁰However, in the case of the Washington data, the results are ambiguous since the interviews refer in some cases to contacts *after* the family started participating in farm and home development.

specific and less reliable kinds of sources, such as mass media, other farmers, and commercial sources. The participators tend to avoid these as the most important source in favor of agricultural agencies. Similar conclusions apply to the wives of the experimental families compared to the control group wives.

ATTITUDES AND VALUES ASSOCIATED WITH MANAGEMENT

The Wisconsin and Washington studies have limited data available to explore the question whether, and in what ways, those participating differ in attitudes and values related to exercise of the managerial function in modern farming.

For the Wisconsin sample the relative importance of being free of debt was explored by means of a question which asked: "Suppose you were buying your farm and were paid up for the year. You have some extra money. What would you do?" Three alternatives were presented: "Pay ahead on the mortgage without question"; "Pay ahead on the mortgage if you had no other pressing needs"; and "Probably put it into something else for farm." In response to this question 48 per cent of the controls chose paying ahead without question, but only 38 per cent of the participators. This difference (even though not statistically significant: $X^2 = 5.248$; $p < .10$) is consistent with the participators' actual debt and tends to support the reasoning that the higher debt of the participators results from rational investment decisions rather than financial distress.

The question on the use of extra money is unique to the Wisconsin study. However, for the Washington study more generalized data in the form of Rural Attitudes Profile¹¹ scores bear on the same question. Looking first at the operators in Table 2, it will be noted that the second largest difference in median score occurs on the economic motivation scale of this Rural Attitudes Profile. Three of the 12 items comprising this scale deal with debt, as for example, "Hates to borrow money even when he knows it is necessary to run the farm properly." To score high on this scale it is necessary to choose this item as one of those "least like yourself, and 61 per cent of the Washington participators did so, compared to only 38 per cent of the controls. In general, a high score is meant to indicate an individual whose value system emphasizes monetary gain as of greater importance than such traditional rural values as freedom from debt and self-sufficiency, which under modern condi-

¹¹This is a "forced-choice" type instrument which requires the respondent to choose from each of twelve groups of four items the item which is "most like yourself" and the item which is "least like yourself." For a description of this Rural Attitudes Profile together with data on norms, reliability, and validity, see Murray A. Straus, *Direct, Indirect and Disguised Measurement in Rural Sociology* (Washington Agr. Expt. Sta. Tech. Bull. 26; Pullman, 1957), and a forthcoming Washington Agr. Expt. Sta. Bull. *A Technique for the Measurement of Values in Rural Life*.

tions interfere with good management. Similar but less-pronounced differences in economic motivation scores are shown for the wives.

The importance of the innovating function of a management has been stressed by a number of writers.¹² It is noteworthy that the largest difference between participators and controls revealed by the use of the Rural Attitudes Profile occurs on the innovation proneness scale, which is designed to measure interest in and desire to seek out changes in farming and homemaking techniques. These data make it clear that in Washington at least those who volunteer to participate in an intensive extension approach differ in certain attitudes and values which are functionally related to efficient management.

CONCLUSIONS

Comparison of farm families participating in Farm and Home Development in three states representing widely different kinds of agriculture with nonparticipants of comparable age has shown a fair degree of uniformity in indicators of managerial selectivity of intensive extension work. Specifically, data relating to prior educational and occupational experience, present tenure and financial status, communication and information-seeking behavior, and attitudes and values functionally related to management, all lead to the conclusion that the self-selection process which has occurred in the recruitment of participators in Farm and Home Development has resulted in a participator group which is above average in managerial ability.¹³ Thus the findings of the three studies analyzed in this paper demonstrate the process of differential association which seems inevitably to occur in programs of this type and emphasize the great need to control the variable of managerial skill by matching on characteristics which reflect managerial ability if a valid estimation of the effectiveness of intensive extension work is to be made.¹⁴

¹²Yale Brozen, "Determinants of Entrepreneurial Ability," *Social Research*, XXI (1954), 339-364; Clarence Danhoff, "Observations on Entrepreneurship in Agriculture," in Harvard Research Center on Entrepreneurial History, *Change and the Entrepreneur* (Cambridge, Mass.: Harvard University Press, 1949), pp. 20-24; Frank H. Knight, *Risk, Uncertainty, and Profit* (Boston: Houghton Mifflin, 1921).

¹³Since this paper was written two studies have appeared which further support the conclusions presented. See John S. Holik and Clay R. Moore, *Balanced Farming Evaluation Study, Osage County* (Missouri Ext. Serv. Mimeo.; Columbia, 1957); and James Longest and Frank Alexander, *Evaluation Study of Farm and Home Management Program in New York State, Adequacy of Sample and Control Group with Statement of Study Design* (Office of Extension Studies, Cornell University, Ithaca, 1958).

¹⁴All three studies for which data are reported here have or will carry out such matching. For Wisconsin see Murray A. Straus, "Short Term Effects of Farm and Home Development in Wisconsin" (Madison: Dept. of Rural Sociology, Univ. of Wisconsin, 1958; processed).

LINCOLN ARMSTRONG

Opinions on Education in Rural Lebanon

Data on educational participation and attitudes toward the educational process and institutions are drawn from a comprehensive cross-sectional socioeconomic survey conducted in rural interior Lebanon. The conclusions suggest a considerably higher level of participation, concern, and affluence with regard to the place of formal education in the lives of the Arab peasants who make up the bulk of the sample than is sometimes anticipated. The heads of fifty-five households provide evidence on the social characteristics of the school population and express themselves on such subjects as the relative value or prestige attached to schooling, compulsory education, improvement of educational services, and "education for what?" Some relationships which exist between career or vocational preferences and type of educational program desired are defined and analyzed.

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IN the course of a random sample socioeconomic survey conducted in the interior of southern Lebanon in 1954¹ data were collected on educational participation and attitudes. The participation material has been published elsewhere² and will be referred to here only where relevant to the present discussion. The specific concern of this paper is a description of the quality and direction of educational orientation as reflected in opinion and attitude statements of a cross section of household heads in one of the larger villages in the original study. The principal target is the validity of the widespread belief that Arab peasants and agricultural village folk lack interest in formal education and that, as a value, such education is vaguely defined, has relatively low priority, and is acceptable only insofar as it remains consistent

¹Lincoln Armstrong, "Social Differentiation in Selected Lebanese Villages," *American Sociological Review*, XXI (1956), 425-434.

²Lincoln Armstrong and G. K. Hirabayashi, "Educational Participation in Selected Lebanese Villages," *Transactions of the Third World Congress of Sociology*, V (1956), 123-131.

with traditional curricular content and does not upset traditional socialization norms of the rural family and community.

THE SOCIAL AND EDUCATIONAL SITUATION

The area in which this study was conducted is characterized by scattered mud-brick villages ranging in size from 50 to 350 households. The dominant occupation is dry cereal farming. While nearly 50 per cent of the population owns some land, almost all holdings are small and fragmented, and the technological level of operation is primitive. Most villages are entirely Moslem, but a few have Christian minorities. Most of the villages have government elementary schools which are usually lacking in both equipment and staff to carry the children through the certificate level (i.e., roughly the equivalent of five years in the U.S.A.). Coeducation is rare in such schools, and the government provides no schools especially for girls. As a result private sectarian and nonsectarian schools assume a major share of the responsibility for rural education in Lebanon. In the area under study private schools enrolled nearly two-thirds of all school children. Nevertheless, 40 per cent of the children of school age had no schooling at all, only 10 per cent finished the certificate, and only 1 per cent completed the tenth grade.³

FINDINGS ON SCHOOL PARTICIPATION

Many of the findings in the school participation phase of this research are clearly related to the attitudinal responses which are to be reported in the present paper. Some of those will be summarized here.

First, the participation data provided little evidence of hostile or negative feelings about schooling on the part of the villagers. On the contrary, teachers and village elders supported the researcher's observation that it is lack of space and inadequate staffing that cause a very low matriculation rate at the certificate level. Since many more children apply for admission than can be taken care of (priority goes to the lower grades), school enrollment figures do not depict reliably the actual interest which exists in these villages.

Second, it was found that educational participation is on the increase. Whereas about 60 per cent of the present youth group is receiving some schooling, less than 30 per cent of the people over fifty years of age and only 37 per cent of those twenty to fifty years of age had received any. This points both to a slight improvement in educational opportunity and an increasing interest and willingness to sacrifice for the sake of education.

³In addition to the sources mentioned in earlier footnotes extensive descriptive background material underlying this research will be found in Lincoln Armstrong, *Beka'a Socio-Economic Survey: Methodological Report* (Beirut, Lebanon: Dept. of Sociology and Anthropology, American Univ., 1954; mimeo.).

Third, while still largely a male prerogative, there is some evidence of improvement in the chances for a girl to get a formal education. About 50 per cent of the present generation of girls are enjoying a few years of schooling, whereas their mothers had had practically none.

Fourth, the socioeconomic and participation data clearly indicate important relationships between status and educational opportunity and achievement. As might be anticipated, females in the ordinary peasant occupational status category were the most underprivileged in terms of educational participation. At the same time, however, in all occupational categories daughters had received more education than had their mothers. But this was particularly true of the middle status occupational categories. This bears out a conclusion recently drawn by Morroe Berger in which he cites empirical evidence from Egypt that emancipation of females is an indication of, as well as a function of, middle-class status.⁴ In this study the village elite and the ordinary peasant shared a disinclination to educate their daughters. The skilled laborers, commercially oriented small-scale farmers, shopkeepers, and white-collar employees were much more inclined to send their daughters to school.

Fifth, the birth order of the children appears to have some bearing on their chances for education. In the case of sons there was a pronounced tendency for the amount of schooling to decrease from a high point in the case of the first-born through the subsequent sons. On the contrary, second- and third-born daughters were in general much more favored than first-born; 65 per cent of the first-born daughters received no schooling compared with approximately 45 per cent of the later-born girls. This is perhaps explained by the prevailing custom in the area of leaving the care of younger children to the eldest daughter, particularly among the peasants, where the wife is often occupied as a field hand.

Finally, the contention that demand for child labor militates against school attendance, receives some support. Higher school attendance was reported for children of nonagricultural workers in the sample than for the ordinary peasants. Many other factors unquestionably contribute to this situation, and it is believed that lack of facilities remains the major cause of school drop-outs and low attendance. Existing school facilities are always fully utilized.

ATTITUDES AND OPINIONS ON EDUCATION

The attitudinal aspect of this research was completed only in the largest of the five villages which were included in the original sample.⁵

⁴Morroe Berger, *The Middle Class in the Arab World*, Princeton University Conference, No. 9, p. 15, Princeton, N. J., 1958.

⁵The original research design anticipated follow-up interviews of the whole sample of 169 families from five villages during each of four seasons of the year. Educational attitude data collection had been reserved for the second round, which

This was the village of Jib Jinneen and it has roughly 350 households of 5 to 6 members each. Our sample in this village included 55 households.⁶ Jib Jinneen is situated on the rise of foothills marking the eastern edge of the southern Beka'a valley. It has a 35 per cent Greek Orthodox minority. There is a government elementary school, which enrolled 165 boys in 1954. In a nearby village there is a Koranic or "Sheikh" school, to which some of the Jinneen children are sent. There are also in Jinneen two Greek Orthodox elementary schools which served 87 boys and 67 girls. And finally, Jinneen has one nonsectarian elementary and junior-high school, which carries children through the Brivet degree (i.e., the ninth grade). With eleven teachers it served 142 boys and 57 girls in 1954.

COMPULSORY EDUCATION

Responses to questions on the acceptability and value of compulsory education help to evaluate the interest in education among the villagers. In this case the evidence suggests a strong and sympathetic interest. There was a 70 per cent approval of compulsory education applicable to both boys and girls. Of the one-half of the group who offered an opinion as to the appropriate length of compulsion, 30 per cent thought it should be compulsory through junior-high school, and all thought it should be compulsory through the certificate (five years). This opinion held for both sexes and was not differentiated by religion or occupational classification of the respondent.

CAREER PREFERENCES

The fifty-five respondents were asked, "What vocations would you like to see your sons and daughters adopt?" The results are shown in Table 1.

Those who mentioned the first two occupational categories are perhaps not entirely realistic. However, some of these responses were volunteered by fairly progressive persons who were actually expending considerable effort in educating their children. At the same time, there is some hopefulness in the good showing of vocations which reflect a middle-class orientation and a recognition that the land itself cannot continue forever to support an expanding population. In addition to an unexplained number of "don't know" answers, the number of respondents who declared that career choices were matters for their children to decide themselves is also rather surprising. On the other hand, it is rather unrealistic that so few parents favored agricultural

never materialized. Forewarned of the premature cancellation of the project, attitude information was collected in only one village, Jib Jinneen, during the first round.

*Obviously, this is too small a number to justify much further generalization in terms of occupational, socioeconomic status or other subcategorization. Nevertheless, the 55 households yielded proportional representation of all the major variables, and a small amount of interstrata comparison remains possible.

Table 1. Distribution of occupational preferences by family heads for their children

Preferred occupations	For sons	For daughters
Government official	2	1
Professional worker	7	0
Clerical worker	4	2
Merchant	2	0
Skilled craftsman	5	8
Elementary teacher	0	3
Farmer	7	0
Housewife and mother	0	17
Would leave decision to children	10	7
No opinion	18	17
Total	55	55

careers for their sons, for probably not many will be able to escape the traditional livelihood for many years to come.

ATTITUDES TOWARD SPECIFIC COURSES OF INSTRUCTION

In answer to a very general question the respondents were almost unanimous in an expression of faith that education is the vital key to achievement of their ambitions for a better life. The questionnaire neglected to probe the meaning or degree of conviction with which that response was given but delved, instead, into attitudes toward different kinds of curricular content. The respondents were presented a list of courses of instruction and were asked whether they would approve or disapprove the inclusion of each item in a program of education for their sons and daughters.⁷ Table 2 presents the results of this investigation. Note that items are presented in rank order of decreasing concern with reference to male children. The rank order for girls offers some marked contrasts.

⁷The interviewers were instructed to place all replies about which there could be any question as to definiteness of approval or disapproval in an "indifferent" or "Don't care" category. If a respondent did not have a son or daughter, he was asked to state his opinion in terms of boys or girls generally. Table 2 can be read in the following manner. In the case of item No. 3, "instruction in English language," 25 and 10 respondents approved such instruction for their sons and daughters, respectively, and 1 and 3 disapproved it for their sons and daughters, again, respectively. Thus 29 fathers were indifferent about instruction in English for their sons, and 42 were indifferent in the case of their daughters.

Table 2. Number of times that 55 household heads definitely approved or disapproved specific courses of instruction for their sons and daughters

Courses of instruction	For male children			For female children			Rank order
	Ap- proval	Disap- proval	Don't care	Ap- proval	Disap- proval	Don't care	
1. Reading and writing	44	—	11	35	2	18	1
2. Business methods and mathematics	25	4	26	5	3	47	9
3. English language	25	1	29	10	3	42	7
4. French language	23	3	29	10	3	42	8
5. Livestock and poultry farming, including shepherding	17	8	30	8	14	33	4
6. Blacksmithing and shoe-making	19	4	32	2	2	51	13
7. Fruit farming	15	7	33	3	3	49	12
8. Vegetable farming	15	5	35	3	5	47	10
9. Health and sanitation	13	2	40	15	3	37	6
10. Music, painting, and other arts	4	8	43	9	10	36	5
11. Sewing, basketry, and other home handcrafts	2	6	47	28	2	27	2
12. Agricultural economics	5	2	48	3	4	48	11
13. Cooking	1	4	50	23	2	30	3
14. Mechanics for industrial engineering skills	4	—	51	—	—	55	20
15. Teacher training	3	—	52	2	—	53	15
16. Military training	2	—	53	—	1	54	16
17. Premedical training	2	—	53	—	—	55	19
18. Carpentry	1	—	54	—	—	55	21
19. Prelegal training	—	—	55	—	—	55	18
20. Home economics, budget and household management	—	—	55	1	—	54	17
21. Nursing	0	0	55	2	0	53	14
	220	54		159	57		

Although more indirect, it is the writer's opinion that the data provided in Table 2 may be more relevant to the respondents' actual vocational aspirations than their previous responses to direct questioning on career choices. Whether they are conscious of the fact or not, considerable knowledge and skill will have to be obtained before many of their occupational aspirations can be realized. It is not uncommon to discover favorable attitudes toward some general goal (like "more and better schooling") coexisting with hostile or at least indif-

ferent attitudes regarding the necessary means by which such goals may be obtained. To the extent this point of view is valid Table 2 not only reflects on dispositions toward specific curricular content but also reveals something about the strength of the people's commitment to professed ends.

Following the interpretation above, the level of indifference indicated generally throughout Table 2 reveals a discouraging lack of concern about what will be required if aspirations for a better life are to be realized. For males the average amount of indifference is 76.3 per cent. For females it is 81.4 per cent. To a certain extent this indifference may be a function of a lack of knowledge about the content of specific courses.⁸ However, indifference runs high even for courses with content with which even the peasant could not help being familiar. For instance, there is little reduction in indifference for even such ordinary male-type courses as business methods, math, livestock and vegetable farming, crafts such as carpentry and shoemaking, mechanics, and teacher training. Likewise, the respondents were indifferent toward training needs of their daughters in garden farming, teaching, household crafts, and home management.⁹

The amount of indifference is so similar in regard to training preferences for daughters and for sons as to suggest that there are reasons other than mere masculine dominance and patriarchalism which result in the great advantages that males actually enjoy in educational participation and achievement. This interpretation is supported by the fact that the over-all amount of disapproval of education was about the same for boys as for girls. On the other hand, the gross amount of definite approval was notably greater for boys than for girls, 220 to 159 responses, respectively.

What is of interest here is not so much comparisons of gross amounts of approval and disapproval as the differential patterns of evaluation of specific courses. Among many interesting observations that might be made the following list singles out only a few that bear on educational values in the Beka'a valley:

1. Disapproval of agricultural or farming instruction is noticeable for both sexes. (See items 5, 7, 8, 11, and 12 in Table 2). It is even greater for females than for males, and in the former case the number of approvals is much smaller. This would lead one to question the normative acceptability of the female "field-hand" role which is so characteristic a phenomenon in the Beka'a valley. One also may wish

⁸However, the interviewers did explain the content of courses when presenting the lists to the respondents.

⁹It is recognized that alternative interpretations of the degrees of indifference are possible. For instance, and particularly in the case of female education, many parents may feel that the training prescribed is irrelevant since it involves skills traditionally acquired quite satisfactorily in the home.

to question the actual degree of attachment to farming as a way of life among these rural peasants.

2. Complementary to the first observation, the approval of instruction in foreign languages (items 3 and 4) suggests that the horizons of these villagers are extended considerably beyond their isolated village lives. There is reason to believe that this interest in foreign languages reflects a widespread desire to escape from village life and the soil. Again the emphasis that is placed on business training for the males points in the same direction (item 2).

3. On the other hand, the data provide supporting evidence that much of the traditional female role is to be maintained. In this regard the frequent approval of the training provided in such items as 5, 9-11, and 13 is relevant. When these are translated into the practical experiences of Beka'a women, they encompass care of animals and the farm yard, care of health and sanitation, responsibility for handicrafts and practical arts such as sewing, weaving, basketry, bread making, and the like, responsibility for esthetic conditions of the home, and, of course, all care of food and its preparation.

4. Finally, a certain degree of realism is suggested in the focus of educational training preferences. The sexual differentiation in preferences is indicative in itself, but more significant is the fact that household heads did not tend to approve many courses which could lead their children nowhere, and in general their disapproval or indifference is associated with instructional fields which hold little utilitarian promise at least for the near future. Exceptions to this are significant, as, for instance, in the villager's failure to recognize the vital role that acquisition of industrial skills could play for the many young adults who annually drift into the cities. Again, while the villagers can be excused for being skeptical, it is also to be hoped that a demand for teachers, nurses, fundamental educators, and sanitarians may soon arise and receive support from private and public agencies. Local personnel will be needed.

PATTERNS OF INSTRUCTIONAL PREFERENCES

The next question to be explored is the extent to which the specific course rejections and acceptances fit into consistent patterns. Is the approval of courses made simply at random by the respondent or are his choices made from within a related pattern? Insofar as preferences are patterned, the author believes this may reflect the general career goals the respondents hope to achieve through education. This interpretation would be reinforced if, in addition to patterning of preferences, there is consistent patterning of rejections by individual respondents. Table 3 presents the distribution of respondents whose preferences and rejections allowed them to be classified according to one pattern or another. The patterns are, of course, purely classificatory. To be classi-

fied in any particular pattern the respondent needed to have definitely approved or rejected all basic courses related to that pattern (usually two or more) and at least one of certain complementary courses for each pattern.¹⁰

Table 3. Distribution of respondent preferences for distinct educational instructional patterns*

Educational patterns	For male children		For female children	
	Approved	Rejected	Approved	Rejected
Business	8	1	1	0
Farming	9	13	1	9
Professional and high white-collar	13	1	4	1
Industry and crafts	8	1	0	0
Emancipated wife role . . .	0	0	10	3
Traditional wife role . . .	0	0	16	1
Simple literacy only	2	0	5	0
No pattern discernible . . .	15	39	18	41
Total	55	55	55	55

*For description of pattern composition see note 10 and Table 2.

Table 3 confirms our earlier impression of a tendency for the respondents to reject farming as a field of study. For their sons, more respondents are against it than for it. In the case of daughters, farming is an approved pattern in only one case while it is rejected in nine cases. In other words, many of the Lebanese housewives who work in the field today may do so out of economic necessity and not because it is a normatively accepted and expected role. At least, this is one possible interpretation.

¹⁰The patterns are defined as follows (for full-course titles refer to Table 2):

<i>Patterns</i>	<i>Basic courses</i>	<i>Complementary courses</i>
Business	2, 12	3, 4
Farming	5, 7, 8	1, 11
Professional	2 or 12, 3 or 4, 15 or 17 or 20	9, 10
Industry and crafts	6, 14	18
Emancipated wife	3 or 4, and 1, 9, 10, 11, 13, 21	15, 20
Traditional wife	1, 11, 13	5, 7, 8
Simple literacy	1	

Of significance also are the levels of aspiration reflected in the relatively high frequency with which "business" and "professional" fields are chosen patterns for male youth. Realistically, one might have hoped the respondents would give more recognition to industrial or vocational education, for which they apparently have a blind spot, at least as far as females are concerned. Industry does receive some recognition as a male orientation and, at least, it is not rejected for either sex.

An earlier suggestion that nonemancipated, traditional female roles continue to be favored by the menfolk in the Beka'a receives some support in the evidence given above, with a rather important modification, however. While the traditional wife role continues to be the most frequently preferred pattern for daughters, there were ten definite approvals of an "up-grading" toward the emancipated wife role. And the suggestion of a need for training for the traditional wife role is, in itself, a sign of a desire for improvement of present conditions of that role. This desire to modify wife roles, plus the frequent rejections of the "field-hand" wife pattern perhaps points in the direction of significant social change in the status of village women.

Analysis of the data to determine intensity of pattern orientation

Table 4. Suggestions for a better school

Suggestions	No. of responses
<i>Primary</i>	
Better teachers (i.e., more highly trained)	15
More teachers	8
More elaborate curriculum and secondary education	6
Increased budget for education	3
Increased and improved government participation	3
Buildings and equipment: renewal and reparation	2
Satisfied with schooling as it is now	2
Offered no opinion or suggestion	16
<i>Secondary</i>	
Technical diplomas made available	3
Regular inspection by competent authorities	2
Teachers' salaries increased	2
Student counseling and guidance provided	2
Foreign language teaching increased	1
No limit for improvement	1

has proved largely unsuccessful. It was assumed that intensity would be reflected to the extent that respondents making definite patterned approvals would simultaneously pattern their rejections. Unfortunately, the sample is very small and there was a marked tendency for respondents to be freer in designating their definite approvals than their definite rejections. In regard to training preferences for sons there were only eight cases in which approved patterns were counterbalanced by rejected patterns. In the case of daughters there were fourteen cases of counterbalancing. For sons, farming was most frequently rejected in favor of business and professional training. While farming was also most frequently rejected for the girls, there was no particular consistency or concentration on alternative approved patterns in their case.

OPINIONS ON THE IMPROVEMENT OF EDUCATION

The Beka'a villagers are neither hesitant nor unsophisticated in their complaints and criticisms of existing school facilities and program. An open-ended question accompanied by probing was used to determine the respondents' estimation of the priority of needs for reform and change in the present school system. Table 4 presents the results.

There can be no doubt that the need for improved and expanded educational facilities, including teachers and curriculum, are emphatically recognized by many Beka'a citizens. Only two respondents expressed satisfaction with things as they are, and less than a third failed to offer an opinion. The specification of responses does not hide the important general fact that the Beka'a villagers feel neglected and "shortchanged" as far as provision of educational facilities is concerned.

Table 5. Priority of needs as assessed by 55 Lebanese villagers

Item	Obtain first	Give up last
House	10	25
Land	9	7
Food	8	1
Investment in productive capital . .	5	(Not mentioned)
Education for children	5	2
Furniture	4	3
Debt repayment	2	(Inapplicable)
Money for marriage	1	(Inapplicable)
Clothing (Not mentioned)		2
Copy of "Das Kapital" (Not mentioned)		1
"Nothing to give up" (Not mentioned)		3
Don't know	11	11
	55	55

THE RELATIVE IMPORTANCE OF EDUCATION

A crude instrument was adopted in an attempt to measure the relative importance that the villagers attach to education, without this intention being too apparent. Toward this end the respondents were asked two open ended questions: (1) "What would you obtain first if you were to happen upon L.L. 5000 [the price of one hectare of irrigated land in the area]?" (2) "What would you give up last among your possessions in the event of calamity?" Table 5 records in rank order the responses to the first question and contrasts the rank-order position of answers to the second question.

Clearly, the villagers under study here are too close to the threshold of survival to be able to evaluate highly anything other than the bare essentials for existence. Nevertheless, education enjoys a fairly high priority in the "obtain first" list. However, education is not really equal in popularity to "investment in productive capital" as it might appear, because such capital is really inseparable from, and should be combined with, land, which ranked second in both scales. On the other hand, education was at least suggested while such things as jewelry, labor-saving gadgets, travel, conspicuous consumption items, medical treatment, and an infinite number of other possibilities were hardly mentioned. But one cannot yet anticipate very large or significant sacrifices or expenditures of effort by these villagers for the promotion of education.

EDUCATION FOR WHAT?

A great deal of the concern over rural education in underdeveloped areas today amounts to a concern over how to enrich and improve rural living conditions and equip rural people with attitudes, knowledge, and skills adaptive to the rural environment. So far the struggle seems to be a losing one. Nothing, and perhaps education least of all, has stemmed the nearly universal rural-urban migratory drift. Men will go where there are effective roles to be played. The evidence from the present study indicates an awareness that effective roles of the future will not be the same as the traditional ones of the past. Nevertheless, the problem seemed to deserve a direct question, and so the respondents were asked: "In the long run, do you think your sons and daughters would be better off staying in the village or moving to the city?" Table 6 summarizes their responses in regard to where they felt their children's best interests lay.

Table 6 indicates neither an excessively high regard for village life nor a very realistic appraisal of the existing situation. A slight majority of the household heads favor their sons establishing in the city while a clear majority favor village living for their daughters. In the light of the sex selectivity (favoring females) of rural to urban migration in other parts of the world and in the few studies including the present one

Table 6. The desirability of village living for sons and daughters as perceived by 55 household heads

Sex	Should remain in village	Should go to city	Undecided	Total
Males	17	20	18	55
Females	22	12	21	55

that have been made in the Middle East, it may be expected that these aspirations will fail to materialize. The evidence indicates that the urban drawing power upon females is as effective in the Middle East as elsewhere.¹¹ Nor does this preference for a continued village life for the females blend with quantitative data presented in connection with earlier publications based on the present research.¹² It was shown there that high sex ratios in infancy become increasingly higher until about the age of 20-24. Also, the over-all rural sex ratio in the Beka'a was estimated at 110. Corresponding to these patterns, a survey of the city of Beirut indicates a reversal of patterns in that highly urban center.¹³ In Beirut there is found an over-all sex ratio of only 95 with sex ratios in the 80's during those youth age levels at which ratios are highest in the villages. While all of this balanced differentiation may not be attributed to migration, a considerable proportion of it must be. There is little reason to suppose that the rural-to-urban drift of both males and females will slow down regardless of the hopes of the parent generation. And almost inevitably, education will do at least as much and probably more to encourage urban migration as it will do to discourage it. And the pressure to move will continue to be greater on girls than on boys.

In conclusion, it is felt that both the quantitative and qualitative aspects of this research have revealed valuable information on educational participation and values in one rural segment of Lebanese society. Furthermore, the manner in which the qualitative material blends and concurs with the quantitative suggests that the over-all picture presented here may be quite valid and reliable. A moot question remains as to the limits or safety with which this information can be generalized to other parts of Lebanese culture. An answer can be provided only through further complementary research.

Highlights among the findings of this survey include the following: Educational opportunity is showing a long-term trend of improvement,

¹¹Afif Tannous, "Emigration, A Force of Social Change in an Arab Village," *Rural Sociology*, VII (1942), 62-74.

¹²Armstrong, "Social Differentiation," pp. 425-434.

¹³C. W. Churchill, *The City of Beirut: A Socio-Economic Survey*, (Beirut, Lebanon: Economics Research Institute of A.U.B., 1954).

and these opportunities are being extended to both males and females. In attitudinal matters, the household heads show a moderate degree of realism regarding educational aspirations and a surprising amount of progressiveness. In short, the intellectual backwardness of the women-folk and the villagers in general appears not to be so much a matter of negative educational attitudes and values as it is a matter of economic and political factors. Given schools, teachers, books, and an up-to-date educational program, these people will not fail to take advantage of personal and social advancement. While the evidence suggests that the villagers will continue to seek many of the traditional prestige symbols through education, such as civil service posts, proprietorships, and a general escape from village drudgery, it is clear that they will respond positively to whatever education is made available.

Research Notes

A DESIGN FOR AREA PROBABILITY SAMPLING

FREQUENTLY in sociological research it is not possible to find or to construct an adequate list from which to sample. Under such circumstances, area probability sampling methods are frequently used. Studies of special population groups such as farmers, rural residents, aged persons, or out-of-school youths are examples of circumstances under which area probability sampling methods might be apropos.

In using area probability sampling, the investigator frequently does not know how many respondents will be found in each area included in the sample. Even if he does know, he may have relatively little current information on which to base a realistic estimate of field costs. This is especially true in the open country, where interviewing costs may range from \$5 to \$20 per interview or even more, depending upon the type of sample, the length of the interview, the number of call-backs required, the weather, or other such considerations.

We have used an area probability design which appears to meet some of the problems involved in sampling populations when costs are difficult to estimate or when the number of respondents is unknown.¹ Others have used this design, but we have been unable to find a description of such a design in the literature of social research. The elements involved in this approach are familiar. Basically the method is simple random sampling, but with some embellishments.

The design is that of randomly choosing an area probability sample by numbering all the areas or sampling units from which the sample will be drawn and then drawing numbers from a table of random numbers, retaining the order in which the numbers were drawn. Data are then collected from the respondents in the chosen areas in approximately the same order as the area numbers were drawn. The sampling may be terminated at any point desired and a random sample is still maintained.

By way of illustration we will describe an application of the design in a current study of the open country population of Stevens County, Washington. We were fortunate in finding a map which showed, as of 1956, the location of dwellings exclusive of those in towns and densely populated areas.² Using this

¹We first used the procedure for an area sample in a survey of the older population of Thurston County, Washington. Cf. Carol L. Stone and Walter L. Slocum, *A Look at Thurston County's Older People* (Washington Agr. Expt. Sta. Bull. 573; May, 1957).

²*Metsker's Stevens County Map. Complete Road and Trail Information*, Tacoma, Wash.: Metsker Maps, 1956.

information, we delineated primary sampling units or areas on the map; each unit or area according to the map contained ten dwellings. These areas were assigned numbers from 1 to 295. In addition, a few unincorporated but densely populated areas, for which we did not have complete information about dwellings, were assigned batteries of numbers above 295. This was done by making an overestimate of the probable number of dwellings in such areas, based upon other maps and conversations with informed local people. These represented 15 additional numbers. Sixty sampling units were then selected from the 310 numbers by means of a table of random numbers. The final sample was chosen from these 60 units by a process to be described later.

Some of the residents of Stevens County reside in remote and relatively inaccessible areas, while others live along the main traveled highways. Hence, it was not possible in advance to make a realistic estimate of costs. Because there was a specified amount of money available to accomplish the field work, we wished to have a sample which would enable us to stop when we had exhausted the funds available for this portion of our work.

This requirement was met by making use of the order in which the areas were selected. It appears, on theoretical grounds, that if interviews are conducted strictly in the sequence in which the areas are selected, interviews can be terminated after any area has been enumerated, and the results can be viewed as a simple random sample of areas.³ Thus we could stop at any point, and the sample would be a probability sample. As a practical matter, to reduce field costs, we made an estimate of probable unit costs based upon experience in somewhat comparable previous studies and constructed an initial set of areas which included order numbers one through 45. Areas in this set were assigned to interviewers in a manner designed to minimize cost. After interviewing these families, we added areas with order numbers 46 to 55. After completion of the initial set we had, of course, established a reasonably reliable estimate of unit costs in the county, and it was not difficult to determine the number of additional areas that could be enumerated.⁴

By using this particular design, the sample can be increased by choosing more areas or can be cut down by stopping anywhere, as long as only complete sample areas are included and all areas chosen before the final one are included.⁵ Since the number of cases is left flexible, the design is particularly useful when the size of the population is unknown and when the investigator is unable to estimate the costs of interviewing.

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³All households in each area or sampling unit were enumerated.

⁴This design was also used in a study of aging in Thurston County, Washington.

⁵A further advantage to this design is the fact that the error formula is the familiar

$$\sigma = \sqrt{\frac{(Pq)}{(N)} \frac{(U-N)}{(U)}}$$

Where P = Proportion

$q = 1 - p$

N = Sample size

U = Universe size.

PROJECTIVE TECHNIQUES AND RURAL RESPONDENTS*

A variety of projective techniques have been utilized in recent years by psychologists, social psychologists, anthropologists, market researchers, and rural sociologists. Although originally developed for the clinical situation, some of these projective techniques have proved to be useful in field interviews as well. The purpose of this research note is to describe the methodological aspects of the use of projective techniques in a study of reference group¹ influences in the adoption of farm practices.

In a series of field interviews with central Iowa farm operators in 1955, using direct questions and a printed interview schedule, the authors attempted to secure information about the important reference groups and their influence upon adoption. It was difficult to formulate questions to elicit the desired type of information, and the respondents did not seem to view this as a socially acceptable topic about which they would give answers. Few of the 148 farm operators were willing to admit on the basis of direct questioning that any reference group influenced their farming decisions. However, on a number of occasions these farmers would indicate by indirect means that such reference groups as neighbors, friends, family, and others were important in the adoption process.

On the basis of the experience of Irving A. Spaulding² at the University of Rhode Island, the use of some sort of *projective technique* was considered as a means of securing data on reference group influences.

A variety of projective techniques have been used by researchers and clinicians in recent years: the Thematic Apperception Test or TAT, story-completion tests, sentence-completion tests, word-association tests, Rorschach Ink Blot tests, and others. All these techniques are "projective" in that they endeavor to get the respondent to project himself into a relatively ambiguous situation which he then interprets and structures on the basis of his past experiences.³ The basic assumption on the part of projective technicians is that the respondent will express a great deal of valuable information about himself as he projects himself into the stimulus situation.

The type of projective technique used in the present study was the *stimulus picture*. It has also been called the "picture-association method," "the picture-response method," and the "cartoon-like projective device." The stimulus picture is a line drawing which is suggestive of a certain situation, but one in which the specific details (such as the facial expressions or actions of the

*Journal Paper No. J-3288 of the Iowa Agricultural and Home Economics Experiment Station, Ames, Iowa, Project No. 1236. This article is a revision of the paper presented by the authors at the Rural Sociological Society, College Park, Maryland, August 29, 1957.

¹A reference group is defined as a group whose expectations are important to the actor in influencing his behavior. An individual may refer to *individuals* as well as *groups*. These reference individuals are labeled "referents."

²*Farm Operator Time-Space Orientations and the Adoption of Recommended Farming Practices* (Rhode Island Agr. Expt. Sta. Bul. 330; Kingston, 1955).

³This definition of projective techniques is essentially similar to that of Marie Jahoda, Morton Deutsch, and Stuart W. Cook, *Research Methods in Social Relations* (New York: Dryden Press, 1951), p. 211.

characters) are missing. The interviewer encourages the respondent to describe what is going on in the picture and how he thinks the pictured characters feel about and perceive different objects and relationships. Thus, the respondent projects himself into the picture.

In each stimulus picture, there is often one character with which the respondent is expected to identify. In the present usage, this character was a farmer in each of the seven stimulus pictures that were constructed. It is believed that the statements the respondents made about "the farmer in the picture" offered valuable insights into the respondents' own attitudes, values, and behavior.

Stimulus pictures are more highly "structured" (that is, more guidance is given to the respondent) than are such projective techniques as the Rorschach Ink Blot tests but are probably less structured than are direct questions. The content of the pictures as well as the nature of the "probe" questions that are developed to accompany each stimulus picture, however, may be varied so as to achieve the desired degree of control or structuring.

DEVELOPING THE STIMULUS PICTURES

In consultation with other rural sociologists, clinical psychologists, and professional artists, a series of seven stimulus pictures⁴ and accompanying probe questions were developed. One of these stimulus pictures was developed to secure from the respondent his perception of the different reference groups influencing his adoption decisions. The selection of other stimulus pictures was based upon the reference groups and referents which past adoption research had indicated are, or might be important in adoption decisions. Stimulus pictures were designed to invoke responses about each of three different reference groups: family, neighbors, and friends. Two other stimulus pictures were designed to direct the respondents' remarks to two different referents: the county agent and the agricultural scientist.⁵ In each of these stimulus pictures the central character was a farmer who was pictured in contact with one of these reference groups or referents.

FIELD INTERVIEWING

A stratified, random sample of twenty-three farm operators was selected from among the 148 farm operators residing in a central Iowa rural community who had been originally interviewed in 1955. The basis of stratification was the farmers' adoption scores. This ensured that our sample of twenty-three farmers contained proportionate numbers of innovators, early adopters, and other adopter categories.⁶

⁴Copies of the seven stimulus pictures are contained in the author's report to the Foundation for Research on Human Behavior, Ann Arbor, Michigan, whose supplementary grant made possible the present study; see Everett M. Rogers and George M. Beal, *Reference Group Influences in the Adoption of Agricultural Technology* (Iowa Agr. Expt. Sta. Rpt.; Ames, 1958 [mimeo.]).

⁵A seventh stimulus picture was included in the series to direct the respondents' remarks to the importance of different mass media communication devices. Because this stimulus picture is not relevant to the topic of this writing, we have not included a discussion of it.

⁶For the system of adopter categorization on the basis of adoption scores that was used, see Everett M. Rogers, "Categorizing the Adopters of Agricultural Practices," *Rural Sociology*, XXIII (1958), 345-354.

The stimulus pictures were mounted on 8½-x-10-inch cardboard and handed to the respondent as the interview progressed. Probe questions were typed on 5-x-8-inch cards for easy reference, although they were seldom used after the first few interviews, since the interviewer had by then memorized the questions. However, in future studies using this method, we might suggest that cards be used in each interview as there are some cases of missing data in the present study.

The interviewer attempted to develop a conversational atmosphere and to maintain a neutral attitude. Neutral but encouraging comments such as, "Yes, that is very interesting, can you tell me more?" or, "You've told me how the farmer in the picture feels toward the county agent, but why does he feel that way?" were included at appropriate intervals.

All twenty-three farm operators in the sample co-operated with the interviewer in responding to the stimulus pictures. The respondents seemed able to talk quite freely about the pictures; the interviewer felt that it was much easier to secure rapport with stimulus pictures than with a printed interview schedule.

None of the respondents seemed to think that it was particularly strange for them to be asked to talk about a series of pictures. Most of the respondents seemed to identify themselves easily and naturally with "the farmer in the picture." They seemed able to articulate easily about "the farmer in the picture," perhaps because the third-person nature of the conversation reduced the threat and anxiety of talking about themselves.

A review of the literature disclosed that the success we experienced with the use of stimulus pictures in field interviews is similar to that of Fillmore H. Sanford, who interviewed a sample of 963 urban residents in Philadelphia,⁷ and that of Godfrey M. Hochbaum, who interviewed 1,200 citizens in Boston, Cleveland and Detroit.⁸

ANALYSIS

Analysis of the data could be made at several levels. These could range from the descriptive level (that is, the manifest content of what the respondent actually said) to situational and psychiatric analysis. The present analysis is mainly at the descriptive or manifest level, and the method of content analysis is used to quantify the data.

Content analysis has been defined as a technique for the objective, systematic, and quantitative description of the manifest content of communication.⁹ Content analysis was the method used to transform the respondents' replies and statements into categories after the tape-recorded interviews had been typed into manuscript form. The typing was a time-consuming and costly operation and could be eliminated if the content analysis were completed directly from the tape recordings.

The content analysis was checked for reliability by two different means. One

⁷"The Use of a Projective Device in Attitude Surveying," *Public Opinion Quarterly*, XIV (1950), 597-609.

⁸"Why People Seek Diagnostic X-rays," *Public Health Reports*, LXXI (1956), 377-380.

⁹Bernard Berelson, *Content Analysis in Communication Research* (Glencoe, Ill.: Free Press, 1952), p. 18.

method was for the same coder to categorize the data at two different points in time. Correlations of +.75, +.80, +.64, and +.80 were obtained between the two sets of content ratings on four different dimensions: perception of the scientist referent, favorableness of opinion toward the scientist referent, knowledge of the Extension Service, and importance of the county agent referent. The other means of determining reliability was for two different coders to perform the content analysis. On the four dimensions mentioned previously, correlations of +.77, +.72, +.43, and +.60 were obtained.

A validity check was secured by determining the relationship between a content analysis rating and a previously computed scale (based on data secured by direct questions in the 1955 study of the same respondents). On three different dimensions (contact with Extension Service, knowledge about Extension Service, and degree of locality orientation) correlations of +.37, +.78, and +.33 were found.

Although these correlations are not extremely high, it must be remembered that the respondents' attitudes and behavior on these three dimensions may have changed in the year-and-a-half interval after the 1955 study was completed. Also, as Jahoda and others have pointed out,³⁰ it is difficult to assess the validity of a projective technique by correlating its results with some more-standardized technique. By definition, a projective technique is intended to get information which is not obtainable by more direct methods.

While the use of content analysis did make possible the quantification of some of the data, it should also be pointed out that many impressions and insights can be gained from the use of stimulus pictures that cannot be transformed into numbers and percentages. These nonquantifiable data are very valuable and (1) offer further insights into past adoption research findings, (2) suggest possible interpretations of quantifiable data, and (3) suggest hypotheses for testing in future studies.

CONCLUSIONS

Recent studies suggest that stimulus pictures may be used by relatively untrained interviewers as one part of a regular interview schedule. The stimulus picture may even be reproduced as one page in the schedule. Studies have been recently completed by the authors in Iowa³¹ and Ohio³² using modifications of the scientist stimulus picture with larger samples of farm people. The results have been encouraging both in terms of (1) the nature of the data that were obtained and (2) the respondents' co-operation in projecting themselves into the stimulus pictures. In fact, the stimulus pictures were found to be excellent rapport-builders and provided relief from interview fatigue.

Stimulus pictures make it possible to secure data from a respondent which he may feel are not socially acceptable to discuss and of which he may not be consciously aware. However, it should be pointed out that there are some areas

³⁰*Op. cit.*, p. 216.

³¹A pilot study of 50 Iowa farmers regarding their adoption of livestock-feeding practices.

³²A sample of 104 Ohio farmers were interviewed in 1957 as part of Ohio Agr. Expt. Sta. Project Hatch 166, "The Communication Process and the Adoption of Farm and Home Practices."

which remain taboo to projective techniques as well as to the direct question.

The use of stimulus pictures and other projective techniques offer promise as useful methodological tools in future research studies by rural sociologists. Projective techniques might be appropriate in the study of rural voting behavior and perceptions of political figures, organizational member relations, population migration motivations, and communication behavior.

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Book Reviews

Bailey, Helen Miller. *Santa Cruz of the Elta Hills*. Gainesville, Fla.: University of Florida Press, 1958. ix, 292 pp. \$6.00.

In six visits, ranging in duration from two one-day stop-offs to two three-month stays, Helen Miller Bailey came to know and to love the people of Santa Cruz Elta. Her book relates her experiences in Santa Cruz and provides life-history sketches of over twenty of the members of this small Oaxacan community of thirty families located nearly four hundred miles south of Mexico City.

Although Helen Bailey is a competent sociologist, her book is a personal document, not a monograph. She shows compassion and considerable understanding of both the cultural setting of a Mexican peasant village and the personal "worlds" of individual villagers. By relating the changes she observed from 1934, her first visit, to 1954, her most recent visit, she explicitly and implicitly raises many questions concerning the achievements of governmental programs in health, agriculture, child care, elementary education, and other fields. Her data, presented in personal narrative and descriptive form, powerfully (though only implicitly) challenge a good many naïve theories about social and cultural change. This reviewer has also lived in a Mexican village. Helen Bailey's people are thoroughly believable and genuinely human.

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de Young, Maurice. *Man and Land in the Haitian Economy*. Gainesville, Fla.: University of Florida Press, 1958. 73 pp. Price not listed.

Although the author of this monograph recognizes Haiti as an "economic enigma," he has made no global study of its economic structure or its international implications, or he would not recommend an increase in coffee production.

Professor de Young insists on a strict differentiation in the terms *agriculture* and *horticulture* in discussing Haiti, the former meaning cash crops planted in orderly fields with use of machinery, the latter meaning fruits and vegetables in small, disorderly plots, intermixed for shade or fertilizing and cultivated by hand. His description of a typical Haitian farm toward the end of the

monograph is more helpful than the use of this term *horticulture* throughout the earlier part of the study.

Interesting indeed, are the descriptions of gang work methods and other cultural legacies from West Africa.

The author pleads for care on the part of technical assistance experts and warns that North Temperate Zone methods and large-scale machinery are not suitable to Haiti, because of topography, climate, soils, and strongly resistant cultural habits.

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Dobriner, William, ed. *The Suburban Community*. New York: Putnam's, 1958. xxviii, 416 pp. \$6.50.

This interesting volume is described as "a sourcebook of the sociological patterns that shape the lives of forty million Americans." It is appropriately "dedicated primarily to the analysis of the suburb as a functioning social system."

The book is divided into six major parts, with an introductory section summarizing the basic theory and the major research findings and implications of suburban sociology. Each major section encompasses material contributed by various scholars and organized, in each case, around a central frame of reference. Some of the selections are original contributions for this particular volume. Most of them, however, are extracted from professional journals and other publications.

Part I, "The Growth of the Suburbs," is essentially demographic and ecologic in orientation. Part II, "The Sociology of the Suburbs," is concerned with the definitive social relationships characteristic of the suburban community.

Following a discussion of the more formal aspects of suburban social organization (Part III), the analysis focuses attention on stratification, leisure-time pursuits, and other features relating to "styles of life" in suburbia (Part IV). This latter section concludes with a penetrating analysis of Levittown.

Part V highlights "Some Suburban Problems," including the areas of transportation, education, race relations, community planning, and related matters. The book concludes, in Part VI, with an attempt at an over-all evaluation of the suburban community.

This sourcebook may be of greatest interest and use to social scientists and students. Certain portions, however, will have much wider appeal.

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Emery, F. E. and O. E. Oeser. *Information, Decision, and Action*. New York: Cambridge University Press, 1958. xiii, 132 pp. \$3.75.

It is a pleasure to add this book by Emery and Oeser to the rapidly lengthening list of empirical studies concerned with the communication and acceptance of improved farming practices. This study, which was made in the

State of Victoria, Australia, rates a first in at least two respects. So far as this reviewer knows, it is the first such study in a commercialized agricultural society outside North America. Moreover, it is the first study within the framework mainly of psychological theory to be made by persons whose principal professional identification is psychology.

Like studies in this problem area made in this country under experiment station auspices, one of the primary objectives is to adduce recommendations for agricultural leaders and program administrators. The study, being comprehensive in scope, thus is made manageable by focusing on the general processes involved rather than the technical aspects of communication theory, the theory of games and decision making, and personality theory. Development of the field schedule and interpretation of findings were guided by Heider's theory of structural balance as extended by Newcomb, together with certain basic propositions of perceptual and motivation theories.

These considerations alone would be sufficient perhaps to arouse considerable interest on the part of rural sociologists and agricultural administrators. However, the study is of further interest from a methodological standpoint. By taking advantage of recent advances in the logic of making causal inferences, Emery and Oeser are able to draw conclusions as to the directions of causal influence. The study is thus particularly rewarding as an example of the way in which one of the principal problems plaguing survey researchers may be solved. In fact, in this reviewer's opinion the success of this investigation owes more to the method of analysis than the theoretical approach, essential though the latter is.

Readers interested in following closely the development of the analysis likely will find the going slow in spots, partly owing to the unfamiliar style of tabular presentation and the conciseness of the writing. Fortunately the writing is clear, and the authors have thoughtfully included a glossary of unfamiliar terms. The report is organized into five parts, with appendices added—"Theoretical Background," "The Main Channels of Influence," "From Exposure to Adoption," "Tactical and Strategic Planning," and "Additional Theoretical Considerations, Summary and Implications of Findings."

While there is much to commend it, the study suffers on several counts. Notwithstanding the analysts' skill, the analysis is limited and the conclusions are occasionally tenuously supported owing to the small number of cases ($N = 36$). Sociologists also will be prone to argue that urbanization refers to a societal rather than an individual process or state, of which the urban orientation of one or even of several persons is only one aspect at most. By failing to recognize this distinction, the authors set the stage for considerable confusion and the failure to recognize some of the limitations of their findings. Finally one of the more serious weaknesses, methodologically, is the failure to demonstrate adequately the validity of some of the indices used. The face validity of several of the indices, e.g., conceptual skill or urban orientation, is not obvious. Moreover, as others have indicated, scaling techniques, which were used in constructing the indices, by no means ensure univocity, particularly with small numbers of items.

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Gordon, Milton M. *Social Class in American Sociology*. Durham, N.C.: Duke University Press, 1958. xiii, 231 pp. \$6.00.

This study is of the class concept in American sociology since the relative demise by the twenties of the earlier evolutionary school. It starts with a résumé of the Marxian-Weberian theories and then analyzes successively the contributions of the ecological school, Sorokin, the Lynds, the Warner group, and others. It concludes with two chapters giving the author's views, entitled "The Logic of Stratification Scales" and "A System of Social Class Analysis." Unquestionably it is a good book, as a reference and text for both mature workers and students.

The reviewer has two criticisms, one of the book and the other of recent sociology. Since Park and the ecologists were not primarily interested in class except as an unavoidable social fact (they were attempting to establish an American formal-sociology), the analysis of their "contributions" seems a little strained. Secondly, since change or dynamics is, in the opinion of the reviewer, the major task of sociology, both this book and American sociology need thorough criticism for the current obsession with "structure." It is true that the author points out this in part (p. 236). However, this incidental remark, in view of the revolutionary class changes in the United States during the past forty years, is not sufficient. In *Patterns of Social Change* by this reviewer, Public Opinion Press, 1956, a lengthy critique of this whole matter is available to those interested. Nevertheless, Gordon's book is valuable.

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Gross, Neal, Ward S. Mason, and Alexander W. McEachern. *Explorations in Role Analysis: Studies of the School Superintendency Role*. New York: Wiley, 1958. xiv, 379 pp. \$8.75.

The authors of this study have directed their attention toward the neglected area of the definition of standards of role behavior. The position of the school superintendent in relation to the members of the school board is the specific subject of the inquiry. They question whether the norms regulating a position are known and accepted and consider role consensus a dependent variable to be studied as a function of a number of factors.

Attitudes on role obligations, obtained in lengthy interviews, are compared through the use of a number of measuring instruments. The authors demonstrate the existence of disagreement on the expected behavior of superintendents. A variety of hypotheses, based largely on the nature of formal organization, the social circles in which the subjects belong, and background variables, predict and explain the absence of consensus. Several chapters are devoted to an analysis of the conflicts resulting from the lack of consensus and of the procedures employed in resolving them.

This investigation of a fundamental, but little understood, area is important and valuable. The analysis might have been even more impressive if the authors had utilized a smaller number of hypotheses with some of the independent variables serving as controls.

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Lerner, Daniel. *The Passing of Traditional Society: Modernizing the Middle East*. Glencoe, Ill.: Free Press, 1958. xiii, 466 pp. \$7.50.

In this book Lerner presents the findings and some interpretations of a large survey made in six Middle East countries mostly in 1950-1951. The influence of mass media, education, urbanization, and industrialization on traditional society is examined. Persons interviewed in each country were classified into traditionals, transitionals and moderns.

A major hypothesis of the study is that high empathic capacity (ability to put one's self in different and new situations) is found only in modern society, which is distinctly industrial, urban, literate, and participant. Traditional society, which has been predominantly rural, illiterate, independent, and nonparticipant, is passing very rapidly in such countries as Turkey and Lebanon and to some extent in most parts of the world.

This book will be valuable to those interested in Middle East society and its politics, the human factors in economic development and social change, comparative cultures, international communication, and exchange programs.

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McCormick, Thomas C., and Roy G. Francis. *Methods of Research in the Behavioral Sciences*. New York: Harper, 1958. ix, 244 pp. \$4.50.

This book represents another instance of an incomplete work of a major sociologist compiled and edited by a former student. The junior author, Professor Francis, states that some of the chapters were fully developed at the time of Professor McCormick's death, but that some required major work by the junior author.

The preface states that the book is intended particularly for use as a first course for graduate students and further that it is written for the student. In some respects the book seems well fitted for the beginning graduate student. The research problems and principles presented are basic and general in nature. Generally speaking, the most complex and unusual problems are left to other materials. There is no tendency to write down to the student or to oversimplify. Communication between writer and reader is generally good.

This is a short book—only ten chapters and 237 pages of text—and one third of the entire book is devoted to the two chapters on measurement and sampling. Any suggestion of padding is avoided and some areas are treated briefly or not at all. The first chapter "Some Fundamental Ideas" is provocative but includes fundamental problems as well as ideas, which could be elaborated and illustrated to advantage. Treatment of subjects is quite uneven. Chapters on "some fundamental ideas," measurement, and sampling are comprehensive. There is no chapter on questionnaires, and the one on interviews is weak, with intermixing of the terms schedule and questionnaire as though they were synonymous.

Over-all evaluation: an interesting book, one which will demand considerable supplementation from other sources and from the instructor.

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Mark, Mary Louise. *Statistics in the Making*. Columbus, O.: Ohio State University, 1958. xxv, 436 pp. \$5.00.

Advisers looking for something to instruct beginning graduate students of social science how statistical data can and should be obtained will find an apt description of this textbook in its subtitle and preface. Subtitle *A Primer in Statistical Survey Method*, it says, "Students...need to learn: first, how to produce statistical tables of scientific quality.... This textbook...attempts an elementary treatment of [this] first phase" (p. vii).

Professor Mark states her recognition of the major phases of the statistical survey as a research method in the social sciences, but she defines her purpose as that given above, because this phase is least adequately treated by other textbook authors. The purpose seems justified and is admirably achieved.

The numerous details involved in the first phase of conducting a survey are not merely presented but explained as necessary to the logic of the over-all intent, namely, rigorous research through the application of the scientific method to social phenomena.

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Morse, Richard M. *From Community to Metropolis, A Biography of São Paulo, Brazil*. Gainesville, Fla.: University of Florida Press, 1958. xxiii, 341 pp. \$7.50.

This is an important history with a strong social emphasis of Latin America's leading industrial center and second largest city (1957 pop. 3,149,504). The author has made a penetrating and detailed analysis of the historical evolution of São Paulo and of many of the social and economic factors upon which urban growth and development along a wide front depended.

This work is appropriately divided into four parts: (1) "Colonialism and New Settlements," (2) "Formation of the City Mind," (3) "City Growth" and, (4) "The Modern Age." Through them is traced the development of the city from its founding in 1554 as an inland outpost of the coastal settlement of São Vicente to its present position. Particular emphasis is placed on the development of the *Paulistano* community and upon the interdependence of the city and its hinterland.

Although sociologists may take issue with what they are likely to consider facile generalizations in the discussion of social factors, there is much of interest in this volume to the rural sociologist, the urban sociologist, and the Latin Americanist. The author has obviously examined a wealth of sources in the field and made excellent use of them. To these he has added the personal observations and experience of a thirteen-month stay in São Paulo. These materials are presented in a highly readable style. The value of the book is enhanced by a bibliography and an index and by the fine job of composition and printing performed by the Florida Press.

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Osborn, Frederick. *Population: An International Dilemma: A Summary of the Proceedings of the Conference Committee on Population Problems—1956–1957*. New York: The Population Council, 1958. ix, 97 pp. \$2.00.

Occasionally there appears a book on population problems with no warnings of doom, no sneers at the stupidity of its opponents, but with a comprehensive, balanced, and sensible view of the numbers of people in the world. Osborn and the Population Council have produced such a book.

The first part of the report, "Outline of Present Conditions," discusses basic demographic data and the interrelations which these have with the social structure (though practically nothing is said of migration). The second part, "Indicated Lines of Action," presents some extremely useful "basic principles" which apply mainly to Afro-Asian (and more limitedly to South American) countries. The concluding chapter discusses population problems of the United States in the hope that it may throw light on "problems of population growth in the Soviet Union as well as in Canada, and to a less degree on the problems of industrialized Europe" (p. 71). Since the factual data are virtually exclusively those of the United States, many eyebrows will probably be raised. The United States is perhaps a good example of what can happen in "advanced" countries. To assume that it is the model for what will happen is another matter.

However else this book is judged, it merits the description of "provocative." But equally important, the book is written simply enough that it can be read by a wide audience. It should be so read—and carefully. There may be a "magic pill" or "natural force" which will make population growth stop before most are impoverished (and one could even argue now that most are impoverished) or these possibilities may not exist, and since no one knows "for sure" which alternative is more probable, the latter alternative should at least make us uneasy. Such uneasiness can be the prelude toward understanding. *Population: An International Dilemma* will help maintain the appropriate climate.

GEORGE A. HILLERY, JR.

Department of Sociology
The George Washington University

Sheldon, Henry D. *The Older Population of the United States*. New York: Wiley, 1958. xiii, 223 pp. \$6.00.

Henry D. Sheldon, Chief of the Demographic Statistics Branch of the United States Bureau of the Census, has produced this book as one of the Census Monograph Series.

The older population must be defined in a complexity of attributes, but for practical purposes maturity is said to begin in the forties, and old age is said to begin with the termination of career employment usually between 65 and 75. In 1800 the median age of the white population in the United States was 16. By 1850 it was 19, by 1900, 23, and by 1950 just under 31. In 1850 persons 60 years and over constituted 4 per cent of the total national population. In 1950 this figure had become 12 per cent. In the period 1900 to 1950 the population of the nation almost doubled, while the population aged 65 and over quadrupled, growing from 3,100,000 to 12,300,000.

Dr. Sheldon lists the following concerns: the phenomenon of aging, the changing age structure, geographic distribution of older population, age and employment, age and occupation, marital status, living arrangements, housing, and income. There is an excellent summary at the end of each section pointing out the major implications. Approximately one-half of the book is devoted to statistical tables and an analysis of the tables. The tables are documentary evidence of the areas under study.

The book is invaluable to demographers, sociologists, students of family life, and persons interested in geriatrics.

MARVIN T. JUDY

*Perkins School of Theology
Southern Methodist University*

Smith, T. Lynn. *Social Trends and Problems in Latin America*. Gainesville, Fla.: University of Florida Press, 1957. iii, 44 pp. Price not listed.

This brief, succinct essay points up vividly the overwhelming problems Latin American countries face. According to Professor Smith, a social problem does not become one until recognized as such by the community where it exists. Therefore he deals with those problems Latin Americans have already recognized as their own: illiteracy, unsanitary living conditions, and uneconomic land tenure systems. He suggests excellent, though not new, ways of effecting productive land reforms which would make expropriation unnecessary: (1) intelligent use of taxation to force land into productivity or sale, (2) a bank set up to buy large estates for resale in smaller units, and (3) technical education for agricultural occupations.

He notes the migration of workers toward cities, the lack of a middle-class mentality, and the tremendous population increase as trends which have aggravated and will increasingly aggravate existing social and economic problems.

There is no doubt that T. Lynn Smith is a highly qualified sociologist in the Latin American field, but it seems unnecessary to remind us of that fact so frequently in so short a treatise.

ANTONIO J. POSADA F.

*School of Economics
University of Valle*

Tauber, Irene B. *The Population of Japan*. Princeton, N. J.: Princeton University Press, 1958. xv, 461 pp. \$15.00.

The number of pages in this great work is misleading, for the book is 9.5 by 12 inches, printed in double columns. There are 18 chapters, four appendices, a bibliography and index, besides 141 tables, 29 figures, and 20 maps.

This work was initiated during World War II and was spread intermittently over two decades. Records and figures, such as were available for the past thirteen centuries, were used in making the best analysis possible of the interrelation of population, culture, and economy for the span of the history of Japan. No review of 500 to 750 words can possibly do credit to the fine product coming out of so prolonged a study. The contents can be only poorly scanned by noting some of the pertinent data and conclusions from various parts of the book.

It was in the Great Reform (Taika) of 645-650 A.D. that the first register of population was ordered. In these house registers, taken every six years, can be found Japan's basic population data.

Japan did not follow the usual Oriental pattern of population change. It was "tampered with" in several periods: in the Tokugawa era (the 1600's), when "thinning" was resorted to, making infanticide and abortions common, with disgrace attached to having more than three children; in the expansionist era dominated by the military, when manpower was needed to implement imperialist designs; and in the postwar adjustment era, when by education and persuasion legalized abortions and sterilization again put checks on population growth.

Revolution in Japan, according to the author, came by adjustment and compromise. The "dark ages" in Japan, broken by the forced opening of the country to foreign trade, was followed by a period of rapid industrialization and urbanization. The earlier values sanctioning infanticide operated to lay emphasis on the small family, and the rapid transition to an industrial society tended to hold down fertility. Population in colonial areas grew more rapidly than in the domestic. Yet all through its history, population increase, more rapid than available support, made a dark outlook for the long future of Japan.

In Japan cultural advance has been related to industrial development, cultural backwardness to agriculture. Yet rural areas were and continue to be the nurseries for youth and homes for the aged; in urban areas children and aged are underrepresented. A plethora of labor has restrained mechanization in agriculture, resulting in very small holdings, 90 per cent being less than 4.9 acres for 6.5 million farm households.

Familism has also persisted, especially in rural areas; urbanization has encouraged the conjugal family, discouraging the extended family system. Even in rural areas the trend has been toward the two-generation family.

Migration has always been from rural to urban, except during the war, when the cities were virtually emptied. Areas of out-migration carry a heavy load of dependency and suffer poverty and high mortality; in them early marriages take place, resulting in abundant children. Although the greatest population growth has been in areas of heavy industry and military installations, especially from 1935 to 1940, yet internal migration left population more concentrated in agricultural areas in 1950 than in 1935. Not all of this was due to a rural-ward migration during the war.

Expansion to areas outside Japan came with a desire for greater economic opportunities where political stability was assured by the Japanese government and army and where the Japanese were superior. Yet expansion into Manchuria, Korea, China, Formosa, and other areas contributed little to the solution of population problems in Japan; in 1940 only 2,900,000 of 75,200,000 Japanese lived outside Japan's borders.

Although gross reproduction rates by 1955 had declined to less than half the rate in 1925, the decline has not been enough to relieve the pressure of population on resources. The resort to contraception, abortion, and sterilization, all of which have been accepted as a part of national population policy, has not prevented the population from growing faster than anticipated. Estimates that population would reach 90,000,000 by 1975 were low; Japan now has almost reached the 90,000,000 mark. Nationwide health pro-

grams have reduced the death rate from 25 per 1,000 population in 1920 to 8.9 per 1,000 in 1955; and life expectancy has gone up from 42 years for males and 43 for females in 1920 to 63 for males and 67 for females in 1955.

Measures to limit birth have through successive government commissions. Postwar feudal forces were opposed to such measures, which did not come through military or occupational forces. The postwar government has made birth control available through low-cost (as low as \$1 per case) abortions and widespread education, reaching into the most rural of the prefectures.

Although Japan has inaugurated effective control measures, population is expected to reach 100,000,000 by 1970-1975, and it will not drop below that figure until the year 2010. Hence, the author concludes that increase in employment in industry must be accompanied by more rational organization of production and distribution, a larger purchasing power within Japan, lessened political tensions, and an expansion of trade, if the population increase is not to create further pressures. After all, through repatriation of 3,100,000 people and a steadily growing population contained on five small islands with only 16 per cent of the land cultivable, there is bound to be increasing pressures. Unless effectively relieved "there may be radical changes in the social structure and political alignments with serious consequences for Japan, the Pacific region and the West."

This is an important addition to the demographic literature of the world and should be a valuable resource book for any demographer. It is primarily a book on population, but it is more than that, for keen observations have been made by the author on family systems and social and economic changes.

D. E. LINDSTROM

*Departments of Agricultural Economics and Sociology and Anthropology
University of Illinois*

Townsend, Peter. *The Family Life of Old People*. Glencoe, Ill.: Free Press, 1957. xvi, 284 pp. \$5.00.

Do old people in Britain lose touch with their children and lead isolated lives? Are the bonds of kinship of little consequence in urban areas? What are the chief problems of old age in urban Britain? Answers to these questions are reported in this volume. Data were obtained by means of intensive interviews with 203 persons living in Bethnal Green, a metropolitan borough in the heart of London, England. Two-thirds of the respondents were women and ranged in age from 60 to 90. The men interviewed were all 65 and over.

The extended family was the dominant interest of most of the old persons in the study. The persons interviewed each had an average of 13 relatives within a mile, and they saw three-quarters of all their children once a week. The most unhappy older persons were those isolated from family life and those who had recently lost a loved one through death. The elderly persons who were isolated from their families made heavy claims on health and welfare services. Older persons with daughters available for help made the least claim on public services. It is estimated that without the care given by female relatives, the number of older persons seeking admission to hospitals and welfare homes would have been from three to five times greater.

Retirement was a tragedy for the men but not for the women who had been working. For the women who had worked, a job was a means of supple-

menting their housekeeping money. For the men, a job provided prestige and associations that made life worth while. Retirement was thus a severe psychological blow for the men but had little impact on the women. A major need of the men was for part-time work.

The volume contains rich diary material, which describes the daily life of older people. The oldsters interviewed were rather optimistic about the present and the future. The evidence in the study indicates that the extended family is not disintegrating but is adjusting to new circumstances and conditions.

E. GRANT YOUMANS

Department of Sociology
University of Kentucky

BOOKS RECEIVED

- Barclay, George W. *Techniques of Population Analysis*. New York: Wiley, 1958. xiii, 311 pp. \$4.75.
- Bhattacharjee, J. P. *Studies in Indian Agricultural Economics*. Bombay: Indian Society of Agricultural Economics, 1958. vi, 326 pp. Rs. 18.
- Bollens, John C. *Special District Governments in the United States*. Berkeley, Calif.: University of California Press, 1957. xiv, 280 pp. \$4.50.
- Chalfant, William B. *Primer of Free Government*. New York: Philosophical Library, 1959. i, 160 pp. \$3.00.
- Cox, Oliver C. *Foundations of Capitalism*. New York: Philosophical Library, 1959. i, 500 pp. \$7.50.
- Cussler, Margaret. *The Woman Executive*. New York: Harcourt, Brace, 1958. xxi, 165 pp. \$3.65.
- Desegregation and the Southern States, 1957, Legal Action and Voluntary Group Action*. Tuskegee, Ala.: Department of Records and Research, Tuskegee Institute, 1958. 59 pp. \$1.00.
- Fallding, Harold. *Precept and Practice on North Coast Dairy Farms*. Sydney, Austral.: University of Sydney, 1958. iii, 63 pp. No price given.
- Halbwachs, M. *The Psychology of Social Class*. Glencoe, Ill.: Free Press, 1959. xvii, 142 pp. \$4.00.
- Hughes, Everett C. *Men and Their Work*. Glencoe, Ill.: Free Press, 1958. vii, 184 pp. \$4.00.
- Larrabee, Eric, and Rolf Meyersohn. *Mass Leisure*. Glencoe, Ill.: Free Press, 1958. x, 429 pp. \$6.00.
- Lazarsfeld, Paul F., and Wagner Thielens, Jr. *The Academic Mind*. Glencoe, Ill.: Free Press, 1958. xiii, 460 pp. No price given.
- McCarthy, Raymond G. *Drinking and Intoxication*. Glencoe, Ill.: Free Press, 1959. xix, 455 pp. \$7.50.
- Miller, Daniel R., and Guy E. Swanson. *The Changing American Parent*. New York: Wiley, 1958. xiv, 302 pp. \$6.50.
- Thompson, Edgar T., and Everett C. Hughes, eds. *Race Individual and Collective Behavior*. Glencoe, Ill.: Free Press, 1958. x, 619 pp. \$7.50.
- White, Leslie A. *The Evolution of Culture*. New York: McGraw-Hill, 1959. xi, 378 pp. \$7.50.

Edited by LOUIS J. DUCOFF*

Bulletin Reviews

Davis, Irving F., Jr., and William H. Metzler. *Sugar Beet Labor in Northern Colorado*. Colorado State Univ. Expt. Sta. Tech. Bull. 63; Fort Collins, Sept., 1958. 102 pp.

This bulletin presents the results of a fact-finding survey conducted in the major sugar beet production area in Colorado in the summer of 1955. The motivation for the study is to consider means of increasing and stabilizing incomes to sugar beet growers in Colorado and other beet-producing states.

This survey points out that in spite of increased mechanization, expansion of the size of units, reduced numbers of units, and increased yield per acre there is still a demand for high-cost seasonal labor on sugar beet farms which is putting many producers into a "cost squeeze." The term high-cost hand labor should perhaps be in quotation marks since it depends on one's point of view. In the aggregate it is high-cost labor to the producer. The labor cost per acre for spring and summer work was \$22.09 in 1956; however, to the individual worker the hourly rate for spring operations had been \$0.65, and for harvesting operations \$0.70 during the last several years.

The study suggests several ways in which the supply of labor available for sugar beet producers can be increased. One of these is to expand the size of the operation and mechanize as much as possible in order to reduce the need for hand labor. The authors point out that a longer work season and continuity of employment would be a strong attraction to seasonal workers. They believe that the work season for seasonal workers could be lengthened by greater co-ordination of the activities of competing recruiters in Texas and other labor-supply states. This might call for a mutual understanding with the farm labor associations, canneries, and so on in other states. The researchers feel that the employers themselves might form their own associations in order to put a labor-pooling program into effect. Also, effort should be made in order to develop crops and varieties whose labor requirements would provide a continuous demand for labor between spring sugar beet operations and other later seasonal works in the area.

In summing up this bulletin from the point of view of rural sociology as a science, this reviewer feels that the study would have been improved if some sociological hypotheses or theories had been tested. However, it was demonstrated that the economic "law" of supply and demand seemed to be operating in the competition for seasonal labor between the sugar beet industry and other agricultural and nonagricultural industries.

GEORGE V. DOUGLAS

Department of Agricultural Economics and Rural Sociology
Montana State College

*Assisted by Elsie S. Manny.

Ellriott, Charles H., Jr., and Glenn H. Beyer. *The Changing Farm Housing Inventory*. Cornell Univ. Agr. Expt. Sta. Bull. 930; Ithaca, July, 1958. 35 pp.

The purpose of this study is to describe the incidence of change in farm housing to nonfarm residential use and the process of this change. Data were obtained from a representative sample of open-country dwellings (761) in the central lake-plains area of New York. Almost half of the open-country dwellings constructed as residences for commercial farmers were occupied by nonfarm (including part-time farmers) or retired farmers in 1955. The farm families interviewed were all living on "consolidated" farms, which are aggregates of several smaller farms. This group comprised about 40 per cent of all the families in the sample.

The greatest proportion of changed-use houses were transferred directly from a commercial farmer to a nonfarm family. Others pass through an interim stage of occupancy by a retired family, in which case the occupants are usually the family that formerly operated the farm. A smaller number move from occupancy by a commercial farmer to hired help and then to nonfarm families.

Comparisons between farm, nonfarm, and retired families were made in respect to tenure, length of residence, income, age, family cycle, education of household head, quality of housing, facilities, and equipment.

One implication of this study is of particular importance to rural sociologists. With a declining farm population some farm housing will continue to be available for other uses. The disposition of such housing has long-range effects on the rural community. It seems reasonable that greater attention to developing this asset could result in an increased net gain for both the developer and the larger community.

FREDERICK C. FLIEGEL

Department of Agricultural Economics and Rural Sociology
Pennsylvania State University

Gregory, Cecil L. *Rural Social Areas in Missouri; An Analysis of the Social Structures*. Missouri Agr. Expt. Sta. Res. Bull. 665; Columbia, April, 1958. 71 pp.

This bulletin represents the latest contribution of the author to the delineation and description of major rural social areas of Missouri. Rural social areas in Missouri were first delineated with data pertaining to 1930 (Bulletin 305, 1939). A revision of these areas was made using 1940 census data (Bulletin 414, 1948). This publication, based on 1950 data, is more than a revision. It represents a distinct advancement in methodology.

The method for delineation of the social areas included three distinct steps. (1) The first task was to assemble data on variables measuring sociocultural, political, economic, and other characteristics of the population. New data included not only the published census materials of state and federal government but also included research results gathered by the department in the course of other studies. "Any reliable variable that measures a characteristic of the population or conditions under which people live or work is useful in social area analysis" (p. 6). (2) The numerous variables were summarized into indices of similarity among counties. Both coefficients of correlation and coefficients of association were used. Because of the nature of reporting census

and similar data, it was necessary to continue to use the county as the unit of comparison. (3) Based on statistical summary, small highly homogeneous groups of counties were designated as core areas. Outlying counties were assigned to the core areas on the basis of coefficients of association. The core area was not the statistical average for the whole social area but represented the apex of the situation which distinguished the social area. The core was more of a pure type, while the outlying counties were considered to be more or less mixed types.

The major contribution of this bulletin is the use of the concept of the core area, which is borrowed from the anthropological theory concerning culture areas. Gregory's core area corresponds to the anthropologist's idea of culture climax or culture center. It is recognized that social and culture areas do not necessarily have abrupt distinct boundaries and that one area may shade off into another. The advantage of this method is that the differences between social areas are highlighted and are not smoothed out by averaging with the peripheral mixed areas. This method should be compared with Bertrand's in *The Many Louisianas* (Louisiana Expt. Sta. Bull. 496, 1955). Bertrand delineated rural social areas but was forced to go outside his statistical methodology and designate cultural islands. Some of these cultural islands would have corresponded to Gregory's core areas. Other groups were distinctly different from the rest of the social area. Thus it would seem that in a state with highly heterogeneous or noncontiguous distribution of population groups it would be necessary to refine Gregory's methodology to distinguish between core areas representing the apex of the area and unrelated cultural islands.

WILFRID C. BAILEY

Division of Sociology and Rural Life
Mississippi State University

Hassinger, Edward W., and Robert L. McNamara. *Charges for Health Services among Open-Country People in a South Missouri County*. Missouri Agr. Expt. Sta. Res. Bull. 668; Columbia, June, 1958. 28 pp.

The Missouri Agricultural Experiment Station has been examining various facets of the rural health situation in the state for the past fifteen years. This is the tenth in its series of bulletins on the subject. It reports on physician and hospital charges and the way in which they were met during 1955 by a random sample of open-country households in Laclede County in the border-Ozark area. It compares findings in this county with those of other studies of rural and urban population groups.

Total charges reported by Laclede County households in 1955 were identical to those reported by rural farm families in 1953 in a nationwide survey conducted through the National Opinion Research Center (Odin W. Anderson with Jacob J. Feldman, *Family Medical Costs and Voluntary Health Insurance: A Nationwide Survey*). There is also close similarity between the proportion of families in Laclede County having no charges for physicians' services and the proportion of all families reporting in the nationwide survey. Even urban population groups with Blue Cross-Blue Shield or other types of health insurance coverage are similar to Laclede County in their proportion

having no charges for physicians' services and no hospital charges. The distribution of families having charges by the amount is also similar in the studies compared.

From these findings the authors hypothesize that "charges for physician and hospital services are similar for various populations in the United States" and "these charges are not very different for urban and rural people."

Whether or not a household had any charge for hospital and/or physicians' services, and also the size of the charge, seemed to be more closely related to income than to other household characteristics. The authors point out, however, that this is not a simple relationship.

About 60 per cent of the households had had some experience with health insurance. Of these, 38 per cent still had health insurance of some kind, usually acquired within the previous five years and usually on a nongroup basis.

Size of income appeared to be the factor most closely related to possession of health insurance. Group enrollment was almost entirely in connection with employment. The opinion that insurance "cost too much" was the most frequent reason for dropping it. Some households had discontinued insurance because of leaving covered employment or because they considered insurance inadequate in some way. The authors make the observation that "the purchase of health insurance which is not adequate or which it is necessary to discontinue after a few payments appears to be a fairly serious problem. Such practices may place health insurance in the position of contributing to rather than diminishing economic strains upon households."

HELEN L. JOHNSTON

*Division of General Health Services
United States Public Health Service*

Morrison, Denton E., and G. Albert Kristjanson. *Personal Adjustment among Older Persons: A Study of Persons 65 and Over in a South Dakota Community*. South Dakota Agr. Expt. Sta. Tech. Bull. 21; Brookings, June, 1958. 49 pp.

An examination of the situation among the aged in our population has been and is currently a part of many experiment station research programs. This bulletin is one of several recent publications dealing with facets of the problem. As stated by the authors, "the present study focuses upon the problems of adjustment confronting older citizens in the rural nonfarm community of Dell Rapids, South Dakota." However, the broad problem of the aged in the state prefaces this statement, and much of the later interpretation leads one to believe that the authors are generalizing to the broader population. This is particularly unfortunate, since the authors' reasons for choosing the community and their description of it would indicate that it constitutes a rather unique community, and generalization, implied or otherwise, beyond its population should be made only with maximum qualification.

The basic hypothesis of the study "is that personal adjustment of older persons (as measured by a Guttman scale of morale) is related to selected independent variables." After a discussion of the concepts of adjustment used by Cavan and Phillips the authors borrow heavily from the morale scale used by Kutner. A summary of research findings of previous studies of the

aged is well presented and easily followed, which is not characteristic of the bulletin as a whole. An eleven-page course on the use of the Guttman scale could have been covered in two pages, with a footnote to other references for the uninitiated.

The authors "move toward testing" their basic hypothesis by setting up sub-hypotheses "on the relationships between such factors as health, marital status, economic circumstances, etc., and personal adjustment." The tables presented, dealing with the cross tabulations of personal adjustment dichotomized into high and low and each of the independent variables, appear to have all their computations based on the dependent rather than the independent variable. While this should not have affected the computation of the chi-square values using raw frequencies, it does not facilitate analytical comparisons and interpretations of the data for the reader or the analyst.

One of the most stimulating parts of the bulletin is the discussion of findings following each variable, which, while highly speculative, does provide much grist for hypotheses for future research.

GEORGE A. DONOHUE

*Department of Rural Sociology
University of Minnesota*

Whitman, Lauris B., and Anne O. Lively. *A Study of Low-Income Farm Families in Two Southern Rural Communities*. Bureau of Research and Survey of the National Council of Churches of Christ in the United States of America, New York, 1958. 65 pp.

This report, the authors state, was prepared primarily for church officials and those who are interested in increasing the effectiveness of the local church. Following a brief discussion of low-income farm families in the United States, attention is focused on two biracial communities in the South—one in Alabama and the other in Arkansas. With the aid of a total of seventy-seven interviews and on the basis of personal observations, the authors analyze the relationships between the low-income farmers and the religious institutions of the two communities.

In many respects, the authors observe, the low-income farmers do not share the value-orientation of the larger society. The farmers generally accept and take for granted their economic plight, and this constitutes a serious handicap in inducing changes which might improve their lot. The churches in the areas surveyed are characterized as having few members, part-time ministers who are not closely identified with the group, inadequate leadership, and a program that emphasizes "other-worldliness."

The authors suggest that the general over-all program of many of the major religious groups overlooks the cultural traits characteristic of these low-income families and as a result there is little or no communication between the church group and the larger body with which it is loosely affiliated. This problem, they assert, may in part be resolved if the larger religious bodies would devise means for crossing the cultural lines which currently separate them from the smaller unit churches.

JAMES N. YOUNG

*Department of Rural Sociology
North Carolina State College*

OTHER PUBLICATIONS RECEIVED

- Allport, Gordon W., *Perception and Public Health*, and Julius S. Price, *The Health Officer and Community Power Groups*. Health Education Monographs No. 2; Society of Public Health Educators, Oakland, Calif., 1958. 31 pp.
- Christiansen, John R., and Thomas R. Ford. *Trends in the Number and Distribution of Medical Doctors in Kentucky*. Kentucky Agr. Expt. Sta. Prog. Rpt. 69; Lexington, Aug., 1958. 22 pp.
- Council on Social Work Education. *Selected Bibliography of North American Social Welfare Literature*. 345 East 46th St., New York 17, N.Y., 1958. 66 pp.
- Fisher, Dorothy Anne, and James M. Koepper. *Survey of Farm Labor in Mississippi*. AMS-260; Agricultural Marketing Service, USDA, Washington, D.C., 1958. 36 pp.
- Gaumnitz, Walter H., et al. *Statistics of Public School Systems in 101 of the Most Rural Counties, 1955-56*. U.S. Dept. of Health, Education, and Welfare Cir. 529; Washington, D.C., 1958. 23 pp.
- Kiser, Clyde V., and P. K. Whelpton. *Social and Psychological Factors Affecting Fertility. XXXIII Summary of Chief Findings and Implications for Future Studies*. Milbank Memorial Fund Quarterly, New York, July, 1958. Pp. 282-329.
- Maitland, Sheridan T., and George L. Wilber. *Industrialization in Chickasaw County, Mississippi. A Study of Plant Workers*. Mississippi Agr. Expt. Sta. Bull. 566; State College, Sept., 1958. 15 pp.
- Rohrer, Wayne C. *A Study of the Homemakers Club Membership in Maryland*. Univ. of Maryland Misc. Ext. Pub. 44; College Park, Sept., 1958. 28 pp.
- Staniforth, Sydney D., and Rudolph A. Christiansen. *The Role of Off-Farm Employment in Rural Development; A Study of Low Income Farms*. Wisconsin Univ. Ag. Econ. 26; Madison, June, 1958. 13 pp.
- U.S. Department of Agriculture, Agricultural Research Service. *The Research Program of USDA; Organization-Coordination-Nature-Location*. USDA Misc. Pub. 779; Nov., 1958. 94 pp.
- U.S. Department of Health, Education, and Welfare, Public Health Service. *Sources of Morbidity Data. Listing Number 6, 1958, from the Clearinghouse on Current Morbidity Statistics Projects*. Public Health Serv. Pub. 628; Washington, D.C., 1958. 83 pp.
- Wilber, George L., and James S. Bang. *Internal Migration in the United States; 1940-1957: A List of References*. Sociology and Rural Life Series 10; Mississippi Agr. Expt. Sta., State College, Oct., 1958. 52 pp.

Edited by MARION T. LOFTIN

News Notes

COLLEGES AND UNIVERSITIES

University of Florida

T. Lynn Smith, professor of sociology, participated in the Seminar on Agrarian Reform organized by the Faculty of Economics of the Central University of Venezuela to help celebrate the twentieth anniversary of the founding of the University. The Seminar was held November 17-27, 1958. This participation included the presentation of a lecture "Some Fundamental Aspects of Agrarian Reform" and daily work with one of the four Commissions into which the Seminar was organized. While in Caracas, Professor Smith also spoke to the staff of the National Agrarian Institute on the subject of rural planning. Professor Smith also gave a lecture "Patterns of Living in the United States and Brazil: A Comparison" at the Conference on Brazil at New York University, December 1-3, 1958.

Michigan State University

Charles R. Hoffer, acting head of the department, is the President-Elect of the Rural Sociological Society.

Charles P. Loomis has been made responsible for the Carnegie-supported Latin American and Border Projects as well as studies carried on by contract with the Inter-American Institute of Agricultural Sciences in Costa Rica. Loomis, in collaboration with John C. McKinney, has reworked the introduction to the translation of Toennies' *Gemeinschaft und Gesellschaft*.

Richard N. Adams has returned from Chili, where he participated in the study of the Overseas Programs of American Universities.

Duane Gibson, in addition to his duties as professor of sociology and anthropology and as co-ordinator of continuing education for the College of Science and Arts, has been named director of the Program for Liberal Arts Education for Adults.

Edward Moe was co-ordinator of the Executive Development School of the American National Red Cross.

Walter Freeman has been promoted to the rank of associate professor and appointed chief of research for the Institute for Community Development and Services.

Iwao Ishino, who was recently promoted to the rank of associate professor, has been awarded a Fulbright grant for 1958-1959 to teach at the University of Tokyo.

Jack Preiss has been appointed to the Governor's Committee on Research and Training in Psychiatry.

Sheldon Lowry taught at the National Institute for Rural Church Leaders held at Butler University in July, 1958.

New appointments to the staff include: Moreau Maxwell, who will divide his time between departmental activities and serving as curator of anthropology in the Museum; John Gullaborn who has a joint appointment in the Department and Continuing Education Services and is teaching off-campus courses; Harold Goldsmith, who is working on migration projects in the Social Research Service; John Howell, who is teaching courses on juvenile delinquency; and John Messenger, who is teaching anthropology in the department on a part-time basis.

Moreau Maxwell returned in September from the high Arctic, where he carried out a three-month archaeological reconnaissance of northeast Ellesmere Island as a member of the National Museum of Canada. His activities there were part of the Canadian Geophysical Year Program at Lake Hazen under the sponsorship of the Canadian Defence Research Board.

John Messenger returned in September after conducting ethnographic research in the Aran Islands of Ireland for a three-month period.

University of Pittsburgh

Albert Martin, professor of political science and chairman of the departmental committee, recently was appointed dean of the School of the Liberal Arts. Dr. Martin will assume his new duties immediately.

University of Saskatchewan, Canada

Richard E. DuWors has accepted appointment as professor of sociology and head of the Department of Sociology. This is a newly created department. Plans for expansion and graduate study are already under way.

Edward J. Abramson of the Pennsylvania State University has accepted a year's appointment as visiting associate professor.

Teachers College, Columbia University

Louis P. Cajoleas, formerly of the staff of Teachers College, Columbia University, has been appointed assistant professor in the Department of Education of the American University of Beirut, Lebanon.

Wilbur C. Hallenbeck on the staff of Teachers College, Columbia University, since 1935, was retired in June, 1958. An urban sociologist who has divided his time between training adult educators and participating in national adult education organizations throughout much of his professional life, Professor Hallenbeck has also served as consultant on several foundation projects. He resides in New York City and spends holidays at his summer home on Cape Cod.

Solon T. Kimball is spending the academic year 1958-1959 as education consultant in community research to the Brazilian Center for Educational Research, a branch of the Ministry of Education. The Center conducts social science studies to help improve the schools of Brazil.

Mozell Hill has joined the faculty in the Department of Social and Philosophical Foundations. Professor Hill was formerly chairman of the Depart-

ment of Sociology and Anthropology at Atlanta University, Atlanta, Georgia.

Sloan Wayland, who joined the faculty of the American University in Beirut, Lebanon, in the fall of 1957, is continuing his work at that university for another academic year.

Washington University, St. Louis

Alvin W. Gouldner, now at the University of Illinois, will join the department in September, 1959, as professor of sociology and department chairman. N. J. Demerath, chairman since 1956, will continue as director of the Social Science Institute and as a member of the department.

Paul J. Campisi has been appointed research consultant to the Washington University Civic Education Center, Television Activities, to study the effectiveness of adult education through the medium of television. W. Youssef Wassef and Mrs. Gabriella Carella Miller have been assigned as research assistants.

Revolving Door, a Study of the Chronic Police Case Inebriate, by David J. Pittman and C. Wayne Gordon has been published by the Free Press and the Yale Center of Alcohol Studies. This study is the result of a three-year investigation sponsored by the State Mental Hygiene Commission of New York.

Robert L. Hamblin and Richard deCharms, assistant professor of psychology, have received support from the Office of Naval Research for a long-term program of research in small groups and interaction analysis.

For the Hamblin-deCharms research and other inquiries, the University has constructed for the Social Science Institute a laboratory which includes five experimental rooms connected by a flexible intercommunication system as well as a large, one-way vision, experiment-observation facility.

Robert J. Miller presented a paper entitled "Ethnopolitics in a Border Culture: Inner Mongolia" at the November meeting in Washington, D.C., of the American Anthropological Association.

FINANCIAL STATEMENT OF THE RURAL SOCIOLOGY JOURNAL, 1957*

RECEIPTS

Cash on hand, January 1, 1957.....	\$ 2,778.94
(Held against 1957 subscriptions).....	(1,983.76)
(Held against 1958 subscriptions).....	(**83.09)
(Other).....	(712.09)
From Rural Sociological Society (membership subscriptions) ..	1,758.00
Current subscriptions and sales (1957).....	2,313.75
Advance subscriptions and sales (1958 and beyond).....	**1,956.60
Sales of back issues for Society.....	1,392.88
Reprint sales.....	691.75
Advertising.....	286.30
Miscellaneous.....	311.57
Annual payment from Rural Sociological Society (1957).....	500.00

Total "normal" receipts.....	\$11,989.79
Additional advance subscriptions 1958 and beyond.....	**2,790.85

Grand total..... \$14,780.64

EXPENDITURES

Printing journal.....	\$ 5,406.70
Engraving and cuts for journal.....	75.02
Mailing costs—journal (postage, postage fees, mailing envelopes).....	299.88
Printing of reprints.....	587.48
Supplies and equipment (letterheads, envelopes, forms, books) ..	274.48
Postage, managing editor's office.....	330.50
Postage and expense money to other editors.....	30.00
Managing Editor's expenses to annual meeting (1957).....	116.35
Other travel and communication (trips and phone calls to printer, etc.).....	49.58
Purchase of back issues for the Society.....	410.75
Refund-subscriptions.....	45.15
Copyright.....	16.00
Binding volumes (for managing editor and editor).....	14.10
Rural Sociological Society for back issue sales (net sales less 10% for handling and postage).....	778.57
Miscellaneous.....	33.32
Personnel wages (part-time secretarial and editorial help)....	900.00

Total..... \$ 9,367.88

Cash on hand at end of period.....	\$ 5,412.76
Advance subscription money (1958 and beyond) transferred to Cornell office.....	4,830.54

Balance.....	\$ 582.22
Transferred to Cornell office.....	291.11

*Covers the 1957 publishing year and transactions of the University of Kentucky office during 1958-1959, until the transfer of all business operations to the office at Cornell University.

**For transfer to Cornell office.

[Continued]

Transferred to University of Kentucky for postage reserve..... 291.11

Net balance..... NONE

Respectfully submitted,

A. LEE COLEMAN

Managing Editor, 1957

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RECEIPTS

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Rural Sociological Society member subscriptions.....		2,835.00	
Current subscriptions.....		4,567.25	
Advance subscriptions (1959).....		2,518.40	
Held against subscriptions beyond 1959.....		135.55	
Reprint sales.....		570.55	
Advertising.....		41.65	
Rural Sociological Society, title for back issues.....		750.00	\$11,718.40

EXPENDITURES

Printing journal.....	\$6,118.26	
Engraving and cuts for journal.....	126.02	
Mailing costs—journal (postage, mailing envelopes, postal fees).....	445.51	
Printing of reprints.....	709.56	
Supplies and equipment (letterheads, envelopes) ..	64.59	
Postage, Managing Editor's office.....	106.25	
Postage and expense money to other editors.....	105.00	
Managing Editor's expenses to Annual Meeting. . .	50.00	
Other communications (phone calls, telegrams) . .	17.54	
Copyright.....	16.00	
Miscellaneous (printing advertising cards, notice to authors, etc.).....	71.35	
Editing costs.....	907.00	\$8,737.08

UNPAID BILLS

Binding volumes for Managing Editor and Editor..	\$	6.00	
Personnel wages (part-time secretarial).....		1,000.00	
Supplies.....		115.25	
Postage.....		50.00	1,171.25 9,908.33

Cash on hand, December 31, 1958.....	\$3,029.32	
Less advance sales 1959.....	\$2,518.40	
Less advance sales 1960 and beyond.....	135.55	
Less unpaid bills.....	1,171.25	3,825.20

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